DOCUMENT RESUME

ED 162 281 CS 004 485

AUTHOR	Conner, Ulla
TITLE	A Study of Reading Skills among English as a Second Language Learners. Technical Report No. 471.
INSTITUTION	Wisconsin Univ., Madison. Research and Development Center for Individualized Schooling.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
PUB DATE	Oct 78
CONTRACT	NIE-G-78-0217
NOTE	265p.
EDRS PRICE	MF-$0.83 HC-$14.05 Plus Postage.
DESCRIPTORS	Cultural Factors; Doctoral Theses; Elementary Secondary Education; *English (Second Language); *Listening Comprehension; Questionnaires; *Reading Comprehension; *Reading Research; Reading Skills; *Second Language Learning; Socioeconomic Influences; *Word Recognition

ABSTRACT

Ninety-one English-as-a-second-language (ESL) students in grades two through twelve and 781 native English-speaking students in grades two, four, and six participated in a study to examine the relationships among word identification, reading comprehension, and listening comprehension of ESL students and to compare word identification and reading comprehension skills of ESL and native English-speaking students. The study also sought to determine the effects of certain individual and socioeconomic variables on ESL students' reading comprehension. The findings revealed that native speakers performed significantly better than ESL students on the word identification tasks, and that there was a positive correlation between ESL learners' reading and listening skills. No association was shown between ESL students' first-language background and their performance on word identification tasks, nor was the ability to read in English affected by reading skills in the first language or by its structure. Clear patterns were evident among the ESL students' reading performance and language background, length of residence in the United States, amount of English spoken at home, and amount of television watched. However, no pattern appeared between the ESL students' reading performance and their sex, sibling position, amount of ESL instruction, or socioeconomic status. (Appendixes include tests, passages and questions, questionnaires, and parent permission letters and forms used in the study.) (FL)

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Technical Report No. 471

A STUDY OF READING SKILLS AMONG ENGLISH AS A SECOND LANGUAGE LEARNERS

by

Ulla Connor

Report from the Project on
Studies in Language: Reading and Communication

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Madison, Wisconsin

October 1978

CS004485

This Technical Report is a doctoral dissertation reporting research supported by the Wisconsin Research and Development Center for Individualized Schooling. Since it has been approved by a University Examining Committee, it has not been reviewed by the Center. It is published by the Center as a record of some of the Center's activities and as a service to the student. The bound original is in the University of Wisconsin Memorial Library.

The project presented or reported herein was performed pursuant to a grant from the National Institute of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education, and no official endorsement by the National Institute of Education should be inferred.

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The Wisconsin Research and Development Center is supported with funds from the National Institute of Education and the University of Wisconsin.

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Acknowledgments

The author is indebted to the members of her dissertation committee: Dale D. Johnson, Thomas Barrett, Elizabeth Whalley, Wayne Otto, and John Kean. Gratitude is also expressed to Dorothy McLimans, coordinator, and other staff members in the ESL Bilingual Program in Madison, Wisconsin Public Schools. Finally, typing assistance was provided by Victoria Connor, Lois O'Brien, Marcia Grayson, and Patricia Cone.

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Abstract

A STUDY OF READING SKILLS AMONG
ENGLISH AS A SECOND LANGUAGE LEARNERS

by

Ulla Connor

Under the Supervision of Professor Dale D. Johnson

This investigation was designed primarily (1) to examine the relationships among word-identification, reading comprehension, and listening comprehension of English as a Second Language (ESL) children, and (2) to compare word-identification and reading comprehension skills of ESL and native English-speaking children. An additional purpose of the study was to determine the effects of certain individual, instructional, and socioeconomic variables on ESL students' reading comprehension.

Five specific research questions were posed:

1. Are there differences in the word-identification skills of native and ESL children?

2. Do word-identification skills have a positive relationship with ESL readers' comprehension skills? That is, do ESL speakers at a higher reading comprehension level possess superior word-identification skills to those reading at a lower reading comprehension level?

3. Are ESL students who understand spoken English well better readers than those who understand spoken English less well?

4. Do children with a first language that is structurally close to English perform better on the word-identification tasks than children with a first language that is structurally less close to English?

5. Are children who read well in their first language also good readers in English?

The following ancillary questions were also investigated:

6. (a) What is the relationship between word-identification skills and reading comprehension among ESL students?

   (b) What is the effect of certain individual, instructional, and socioeconomic variables on ESL students' reading comprehension?

To measure the subjects' reading comprehension skills, the reading sub-tests from the Metropolitan Achievement Tests were used. A non-standardized word-identification test, designed by the Word Identification and Reading Research Group at the Wisconsin Research and Development Center of the University of Wisconsin, measured word-identification skills at the second-, fourth-, and sixth-grade reading levels. Listening comprehension was assessed by means of reading passages from the auditory comprehension sub-test of the Diagnostic Reading Scales. To help ascertain potential individual and socioeconomic determinants of reading comprehension of ESL learners, a parent-student-teacher questionnaire was used.

The subjects included a total of 781 native English-speaking children from 9 elementary schools in Wisconsin. In addition, 91 ESL students from the Madison, Wisconsin Public Schools constituted the ESL sample. The major conclusions were:

1. When the reading levels were the same, the native English-speaking students performed significantly better than ESL students on the majority of the word-identification tasks.

2. On most of the word-identification tasks, the ESL readers at the sixth-grade reading level performed significantly better than their counterparts at the fourth-grade reading level.

3. There was a positive correlation between ESL learners' reading and listening skills when all the subjects were included. No correlation was discovered at the second-grade reading level.

4. There was no association between ESL children's first language background and their performance on word-identification tasks.

5. Ability to read in English as a second language was not affected by the structure of the first language or reading skills in the first language.

6. Discernible patterns existed between the ESL students' reading performance and the following independent variables: language background; length of residence in the United States; amount of English spoken at home; and hours of television watching per day. No clear patterns appeared between the ESL students' reading performance and their sex, sibling position, number of library visits per month, amount of ESL instruction in the United States, and socioeconomic status.

The major findings of the study implied that it would be advantageous for ESL and classroom teachers to know that:

1. ESL learners may be able to comprehend what they read without performing on phonics tasks or recognizing plurals in English as well as native English-speaking students.

2. Since a positive correlation was found between ESL learners' listening and reading comprehension skills, ESL instruction should integrate these two skills. The lack of a significant positive correlation at the beginning level suggests that reading instruction might not have to be delayed until an ESL child understands spoken English.

3. Since no association was found between ESL children's first language background and their performance on certain language structures of the word-identification tasks, ESL students should not be expected to learn these structures according to the degree of similarity or dissimilarity of their first language with English.

APPROVED BY: Dale D. Johnson
Dale D. Johnson

DATE: Oct. 5, 1978

CHAPTER I

INTRODUCTION, STATEMENT OF THE PROBLEM, BACKGROUND, AND RATIONALE

Introduction

English as a second language (ESL) programs since the early 1960's and bilingual programs since the 1968 Bilingual Education Act have provided instruction to a large portion of Americans who have a native language other than English. According to the 1970 census of population, 33.2 million Americans (16 percent of the population) spoke a language other than English as a native tongue (USCCR, 1975, p. 10). The U.S. Office of Education estimates that in 1976 about five million school children had a non-English language background (USCCR, 1975, p. 13). In the 1960's there was a growing recognition that linguistically diverse children needed special assistance to succeed in school.

At the present time, reading in English is considered a vital skill for success in school. Therefore, the teaching and assessment of reading is an area of great concern to ESL, bilingual, and regular classroom teachers. Studies frequently report that non-native speakers of English read below their grade level (Fowler, 1973; Gaarder, 1967; Garcia, 1974; Morris, 1972). As a teacher in the Madison, Wisconsin, Public Schools for five years, the present investigator has confirmed these findings in classroom settings in the case of the ESL learners with varying linguistic and cultural backgrounds.

There is controversy about methods and approaches to use with ESL learners: some educators have criticized reading programs with strictly controlled vocabulary and skill hierarchies and have strongly advocated the language experience approach (Ching, 1973; Garcia, 1974; Smith & Johnson, 1976; Thonis, 1976). The practice of teaching English to ESL learners has been traditionally dominated by the audio-lingual methodology which presupposes that reading can be taught only after some fluency has been achieved in speech. However, recently, there has been increasing awareness that teaching of reading should not wait until the student understands and speaks English (Saville-Troike, 1973). Still, even though ESL instruction might include some training in reading and writing skills, it is the regular classroom teacher who is generally expected to do most of the teaching of these skills.

Research on reading acquisition for native speakers has yielded efficient and effective ways to teach reading, which yet are relatively unexplored for ESL learners. There are three major areas in particular. First, studies are needed to determine whether word-identification skills among ESL learners differ from those of native English-speakers. Second, it is essential to know what the relationships are among word-identification, reading comprehension, and listening comprehension among ESL children. Third, we need to identify the independent factors which most affect ESL learners' reading performance. Among variables which have been suggested to be predictors of either reading performance among native English-speaking children or ESL

learners' general language proficiency are sex, first language background, type of instruction, and parents' socioeconomic level. Additionally, the information about these variables is easily available for ESL and classroom teachers. Knowledge of the predictive value of these factors on ESL reading would aid ESL and classroom teachers to diagnose the needs of incoming ESL students more accurately. The assignment of appropriate instruction and continuous monitoring of progress would also benefit from the study of these independent factors.

Statement of the Problem

This study was designed (1) to investigate the relationship among word-identification, reading comprehension, and listening comprehension of English as a second language (ESL) children, (2) to compare word-identification and reading comprehension skills of ESL and native English-speaking children, and (3) to determine the relationship of certain individual, instructional, and socioeconomic variables with ESL students' reading comprehension.

In more specific terms, the study dealt with five major questions:

1. Are there differences in the word-identification skills of native and ESL children?
2. Do word-identification skills have a positive relationship with ESL readers' comprehension skills? That is, do ESL speakers at a higher reading level possess

superior word-identification skills to those reading at a lower reading level?

3. Are ESL students who understand spoken English well better readers than those who understand spoken English less well?
4. Do children whose first language is structurally somewhat similar to English perform better on the word-identification tasks than children whose first language is structurally quite different from English?
5. Are children who read well in their first language also good readers in English?

The following ancillary questions were also investigated:

1. What is the relationship between word-identification skills and reading comprehension among ESL students?
2. What is the effect of certain individual, instructional, and socioeconomic variables on ESL students' reading comprehension?

Background

Prior to the design of the present investigation, research related to second-language acquisition was reviewed and analyzed. The review showed that little research existed about the reading comprehension and word-identification skills among ESL children. Therefore, it was necessary to review literature related to the reading comprehension and word-identification among native English-speaking children in the following areas:

1. Theories of reading comprehension.
2. Measurement of reading comprehension.
3. The relationship between reading comprehension and word-identification.

In addition, available literature bearing on ESL learners was reviewed in relation to the following topics:

1. The significance of word-identification for ESL students.
2. Teaching reading to ESL learners.
3. Testing reading abilities among ESL learners.
4. ESL learners' reading and listening comprehension skills.
5. ESL learners' first language background and performance in certain word-identification tasks.
6. The relationship between ESL children's first and second language reading.
7. Individual, instructional, and socioeconomic factors in ESL learners' reading performance.

The remainder of this section will treat the topics in the order presented.

Reading Comprehension Among Native English-speaking Children

Theories of reading comprehension. Reading comprehension is generally defined as a deriving of meaning from the printed page. Harris and Smith (1972) stated that "few people today would question the statement that gaining meaning is the foremost goal of reading and therefore should be the major focus of reading instruction"

(p. 239). While Bormuth (1969) claimed that comprehension is usually defined in terms of mental processes but "attempts to describe them turn out to be nebulous and confusing to practically everyone, except, perhaps, the person doing the description" (p. 49), he was still willing to define comprehension as a "set of generalized knowledge-acquisition skills which permit people to acquire and exhibit information gained as a consequence of reading printed language" (p. 50). Although these sources indicate consensus about the definition of reading comprehension, the process by which such comprehension is achieved is the subject of wide debate. For this review, three major approaches used to explain the process of reading comprehension--psycholinguistic, factor-analytic, and models--will be discussed.

The psycholinguistic approach is traceable to the early part of this century when the thinking process in reading comprehension became the emphasis. Huey (1908) stated that "reading is the art of thought-getting and thought manipulation" (p. 359). In 1917, Gray added that "reading comprehension is the obtaining of meaning through reading" (p. 28). E. L. Thorndike (1917) concurred with Huey and Gray, claiming that "reading comprehension is a thinking process" (p. 323). Thorndike gave a comprehensive description of what is involved in reading: "Understanding a printed paragraph is then a matter of habits, connections, mental bonds, but these have to be selected from so many others, and given weights so delicately, and used together in so

elaborate an organization 'that to read' means 'to invent' or 'to demonstrate' or 'to verify'" (Thorndike, 1917, p. 114). Goodman's theory of reading as a "psycholinguistic guessing game" (1970) resembles Thorndike's view of reading. According to Goodman, the reader brings to the reading process his total experience--what he has seen, heard, and said throughout his lifetime and also the immediately past experiences of what the previous word or phrase in the sentence said or what the earlier part of the story was about.

Another psycholinguist, Frank Smith, wrote (1971) that letter- and word-identification, and comprehension of meaning are three different tasks performed separately but through use of the same information. This concept is built on the notion of semantic and syntactic redundancy; the reader uses whatever distinctive features he finds available to him, often a combination of such features. In early reading, much greater use is made of phonics, because the reader is unable to use syntactic, semantic, and contextual clues with any degree of facility. But as the reader matures, he learns to use a variety of clues, frequently a different set for each task.

To isolate components of reading comprehension, factor-analytic techniques were first applied in reading research in the 1930's and 1940's. Davis (1944, 1968) conducted two factor-analytic studies to investigate those factors reported in the literature to contribute to overall reading comprehension. He not only wanted to determine the

relative importance of each factor but, in addition, to ascertain the uniqueness of each factor's contribution to reading comprehension. The nine testable skills studied, as determined by a detailed search of the literature, were as follows:

1. Recalling word meanings.
2. Drawing inferences about the meaning of a word from content.
3. Following the structure of a passage.
4. Formulating the main thought of the passage.
5. Finding answers to questions answered explicitly or merely in paraphrase in the content.
6. Weaving together ideas in the content.
7. Drawing inferences from the content.
8. Identifying the writer's techniques, literary devices, tone, and mood.
9. Recognizing a writer's purpose, intent, and point of view.

Davis found that the nine factors listed above did represent non-chance variance (i.e., each did account for a significant degree of difference on the reading comprehension test scores). His studies pointed to the general conclusion that:

> comprehension among mature readers is not a unitary ability but that it is largely dependent on knowledge of word meanings and on ability to reason in verbal terms. Other more specific skills are involved but to a small extent (1972, p. 663).

Spearritt (1972) attempted to cross-validate Davis' findings

and in so doing identified four skills of the nine skills: (1) recalling word meanings; (2) following structure of passage; (3) drawing inferences; and (4) recognizing the writer's purpose, attitude, tone, and mood as separate skills. Vocabulary was best differentiated while the three other factors were barely distinguishable from each other.

Another way of viewing reading comprehension is through models of the reading process. Gough (1972), LaBerge and Samuels (1974), and Rumelhart (1976) have developed three such models.

Gough (1972), for example, attempted to give a complete information processing description of the reading process. In his model, independent stages of processes can be visualized from letter-by-letter reading via word formation to phonemic representations. According to this "bottom-up" model (i.e., no higher level of processing can affect any lower level), the reading process is a strict letter-by-letter, word-by-word analysis of the input string.

Another "bottom-up" model of reading where reading is initiated by visual stimuli and ended by semantic interpretation (with less strict restrictions for by-passing of stages than in Gough's model) was presented by LaBerge and Samuels (1974). The model describes reading as divided into the general skills of decoding and comprehension. For reading comprehension research, the model implies that decoding abilities correlate with comprehension.

Rumelhart's (1976) model proposed an interactive processing among

the various knowledge sources. Rumelhart (1976) founded his model on the following premises:

1. Our perceptions of letters often depend on the surrounding letters.
2. Our perception of words depends on the syntactic environment in which we encounter the words.
3. Our perception of words depends on the semantic environment in which we encounter the words.
4. Our perception of syntax depends on the semantic context in which the string appears.
5. Our interpretation of the meaning of what we read depends on the general context in which we encounter the text.

Despite the different approaches to explain reading comprehension, consensus regarding the basic processes in reading comprehension has not yet been achieved. In the following section, standardized reading comprehension tests are discussed. They offer an operational definition of reading comprehension, which is not always consistent with the reviewed theory.

Measurement of reading comprehension. Standardized reading tests have measured reading abilities of children in this country since the Gray Standardized Oral Reading Paragraph in 1917 (Venezky, 1974). Reading Tests and Reviews (Buros, 1968) lists and reviews 292 reading tests, 23 of which are diagnostic, while The Seventh Mental Measurements

Yearbook (Buros, 1972) contains descriptions and evaluations of 102 published reading tests.

After having critically reviewed standardized reading tests, Lennon (1962) raised questions about their validity and cast doubt on the ability of standardized reading tests to measure the specific reading skills most of them claim to measure. He implied that subtests of standardized reading tests, except for the vocabulary test, may measure much the same function of reading comprehension. According to Lennon, test makers had been devoting too much effort to measuring inferential interpretation abilities for which understanding the explicit or literal meaning was a prerequisite.

Farr (1969) saw validity, reliability, and practicality as issues which standardized tests had not met successfully. With regard to the measurement of reading comprehension, he conjectured that reading comprehension will be found to be composed of a variety of skills and that particular sets of conditions would affect the subskills. As examples of these conditions, he listed the selected reading passages (p. 64), types of questions, environmental conditions for reading, and most important the reader's purpose, mental set, and command of basic decoding skills (p. 52). Farr concluded that research bearing on the measurement of reading subskills was very limited. Moreover, he cited the need for a clear understanding of the nature of reading as the most pressing concern in measuring comprehension.

In 1973, Berg also questioned the validity of standardized testing and stated that: "before a reading test can claim to measure some particular ability in reading, the existence of that ability must first be demonstrated by an appropriate statistical analysis" (p. 28). His review of the literature of factor-analytic studies of reading comprehension, in particular, led to the conclusion: "There are few consistent findings relative to a large number of statistically identifiable separate reading abilities" (p. 30).

Central to the problem of validity is the principle that reading comprehension tests are supposed to measure students' understanding of what they read. The questions should be based entirely on the information in the reading passages. However, it has been found that items in standardized reading tests are not always dependent on the passage, since a number of studies have shown that examinees are able to answer the questions correctly without the associated passages. For example, Preston (1962), Weaver and Bickley (1967), Pyrczak (1972), and Tuinman (1973-74) all administered standardized reading comprehension items without the passages and found a lack of passage dependency in the reading comprehension tests used. In general, they concluded that knowing the answer from previous learning, eliminating irrelevant information, using information embedded in preceding questions, or benefiting from the high associations between words in an item stem and in the correct response may aid students to select the correct choice among the multiple-choice items.

Both Pyrczak (1972) and Tuinman (1973-74) proposed ways of computing passage-dependency indices. Tuinman's index compared the proportion of examinees who answered an item correctly without having read the passage ("passage out") with the proportion who answered correctly after having read the passage. Pyrczak's index required giving the test in the passage-out condition only and compared the results with the proportion of correct answers expected on the basis of chance alone.

Despite the problems raised about standardized reading tests, the intervening research since their inception has improved their quality. More importantly, it has increased the sensitivity of researchers to their proper use. Thus, they remain the most efficient and fairest means of gathering objective data about reading performance.

The relationship between reading comprehension and word-identification. There are two theoretical viewpoints concerning the importance of word-identification skills in relation to reading comprehension. First, some educators and researchers emphasize the hierarchical order of reading skills and regard sufficient word-identification skills as a necessary condition for reading comprehension abilities. Some experiments even show the positive impact on comprehension of training children in word-identification skills. Second, meaning orientation has become the emphasis in more recent reading comprehension studies with growing de-emphasis on word-identification skills.

Turning initially to the research which emphasizes the significance of word-identification skills, there are strong arguments that such skills are necessary for successful comprehension. For example, Durrell (1958) after studying reading achievement of beginning readers concluded:

> Most reading difficulties can be prevented by an instructional program which provides early instruction in letter names and sounds, followed by applied phonics and accompanied by suitable practice in meaningful sight vocabulary and aids in attentive silent reading (p. 5).

The order of these and other skills has been a debated issue in the literature. According to Carroll (1976), there are eight reading skills which most specialists agree must be learned. Those who believe there should be an early emphasis on decoding of print into sound via letter-sound relationships, follow the order of instruction of skills as listed below (Carroll, 1976, pp. 13-14):

1. The child must know the language that he is going to learn to read.

2. The child must learn to dissect spoken words into component sounds.

3. The child must learn to recognize and discriminate the letters of the alphabet in their various forms (capitals, lower case letters, printed and cursive).

4. The child must learn the left-to-right principle by which words are spelled and put in order in continuous text.

5. The child must learn that there are patterns of highly probable correspondence between letters and sounds, and he must learn those patterns of correspondence that will help him determine the pronunciation of unfamiliar words.

6. The child must learn to recognize printed words from whatever cues he can use--their total configuration, the letters composing them, the sounds represented by those letters, and/or the meanings suggested by the context.

7. The child must learn that printed words are signals for spoken words and that they have meanings analogous to those of spoken words. While decoding a printed message into its spoken equivalent, the child must be able to apprehend the meaning of the total message in the same way that he would apprehend the meaning of the corresponding spoken message.

8. The child must learn to reason and think about what he reads, within the limits of his talent and experience.

Many instructional programs in early reading are based on the assumption that decoding subskills are interrelated according to some specific hierarchical order. Yet, these hierarchically arranged skills programs have been criticized. For example, Johnson and Pearson (1975) wrote as follows:

> In short, what is at issue is whether or not mastering a specific skill improves a child's ability to read and/or comprehend running text. . . . The present question is whether or not mastery of that skill, regardless of how it is assessed, transfers to something most of us would like to call 'reading' (Johnson & Pearson, 1975, p. 762).

Nevertheless, strategic training of reading subskills has been proven successful in the repeated studies by Samuels, Dahl, and Archwametz (1974).

Samuels, et al. (1974) attempted to facilitate comprehension by developing a hierarchy of seven subskills. These subskills were:

1. Ability to say a word given an initial sound.

2. Ability to determine the beginning letter of a spoken word.

3. Ability to recognize the initial letter of an orally presented word.

4. Ability to use auditory context to predict words that could logically follow.

5. Ability to use auditory context to predict words that could logically follow in a sentence hearing just the initial sound of the word.

6. Ability to use visual context to predict words that could follow in a sentence without seeing the initial letter.

7. Ability to use visual context to predict words that could follow given the initial letter of the target word.

Two groups of students, one of mentally retarded children, the other third-grade readers, were trained in this skill hierarchy. A modified cloze test (the first letter of the target word was not deleted) was part of the training and was also the dependent measure of comprehension. The experimental subjects in both groups performed better than the control groups in the dependent measure.

The second theoretical position regarding the relationship between word-identification and reading comprehension began about 10 years ago when linguists' interest in reading shifted the emphasis from word-identification skills to language organization as a principle factor underlying comprehension. This viewpoint holds that there should be an early emphasis on getting the meaning from print and that the child should advance as quickly as possible toward the

word-recognition and meaning apprehension capacities of the mature reader. Those who hold this viewpoint believe that the skills mentioned on page 14 should be introduced in the following order (Carroll, 1976, p. 15):

1. The child should learn the language he is going to read.
2. The child should learn to recognize printed words from whatever cues he can use, but initially only from total configurations.
3. The child should learn that printed words are signals for spoken words, and that meanings can be apprehended from these printed words.
4. The child must learn to reason and think about what he reads.
5. The child should learn the left-to-right principle, but initially only as it applies to complete words in continuous text.
6. The child should learn to recognize and discriminate the letters of the alphabet.
7. The child should learn to dissect spoken words into component sounds.
8. The child should learn patterns of correspondence between letters and sounds to help him in the advanced phases of skill 2.

There is recent support for this relegation of word-identification to the lowest position in the hierarchy of reading skills. In a 1971 study, Oakan, Wiener, and Cromer examined the relationship of word-identification skill, organization, and reading comprehension of good and poor fifth-grade readers. Results indicated that skill at

word-identification is not a sufficient condition for good comprehension and there was no improvement in poor readers' comprehension resulting from word-identification training. An experiment to study the effect of contextual and syntactic cues to word-identification was conducted by Steiner, Wiener, and Cromer (1971). Poor fifth-grade readers in the study failed to utilize syntactic and contextual cues in the text. It was concluded that poor readers do not make use of various signal systems in their language. A similar conclusion about poor readers' inability to combine the subskills in reading tasks comes from recent research by Guthrie (1973). In general, then, these studies imply that reading is a unitary process for good readers but is fragmented into unrelated skills for poor readers.

In conclusion, there is support for both viewpoints. Some studies have shown the positive impact on comprehension of training children in word-identification skills. The results of some other studies have also implied that for poor readers, reading may not be a unitary process and that training them in reading subskills is needed for comprehension.

Research Related to ESL Reading

In this section, studies relative to word-identification skills among ESL learners are reviewed. Then, a discussion follows concerning teaching and testing of reading abilities among ESL learners.

The significance of word-identication for ESL students. MacNamara's (1967) study of English-Irish bilingual children's reading skills showed that a second-language reader needs more time for the task of decoding the written language than a native speaker of that language. Consequently, he claimed the time for higher-level reading skills is decreased. Thus, he recommended exercises to develop word-identification skills.

Harris' study (1966) indicated that ESL learners can easily match test words with identical words (sing/sink, sins, sang, sing, sign) or identify word pairs (poor day; poor pay) but have difficulty in identifying synonyms and antonyms.

Morris (1968) referred to the role of word-identification in the teaching of reading to ESL students at the secondary level. According to Morris, the purpose of reading at the secondary level is usually not to teach students to decode but to "explore, interpret, and extend the concepts represented in the written symbol" (Morris, 1968, p. 162). Hatch (1964) asserted that in the case of advanced readers "while word recognition is important, one should not waste time on visual perception since this is a skill students already possess at this level. Instead, once basic skills in reading are acquired, we should relax our emphasis on recognition of small units and concentrate on the larger process" (p. 78).

It is apparent that there are differing opinions about the importance of word-identification skills and the reading of ESL learners at various educational levels. MacNamara's study supported emphasis on skills training, while Harris, Morris, and Hatch regarded meaning-oriented reading instruction as more important. However, Morris and Hatch, in stating that the purpose of reading at the secondary or more advanced levels is not to decode but to read for meaning, have ignored the case of the illiterate student in the secondary grades. They are obviously referring to students who have progressed through the regular academic school program in this country or have had ESL instruction in their own countries. There are, however, many students in this country who do not know how to read English. In some cases they are also illiterate in their own languages. For these students, it would seem essential that they be given word-identification instruction.

Teaching reading to ESL learners. In teaching ESL reading, no one approach has been found completely satisfactory. Instead, an eclectic approach is often preferred for teaching reading to ESL learners. Recommending an eclectic approach, Thonis (1976, p. 27) wrote:

> Any approach to the teaching of reading English, no matter how promising, must be modified for use with the Spanish-speaking child whose language and culture differ in so many ways from the content and form of these methods.

Ebel (1978) concurred with Thonis based on her observations of 25 ESL reading classes. She perceived, however, that two trends prevail in reading programs for ESL learners: (1) focus on phonics skills and (2) focus on meaning-oriented activities.

Phonic methods have been criticized when they are used with ESL instruction that omits a stimulating oral language program. Several writers mention difficulties the non-native speaker encounters in learning by means of phonic methods. Thonis (1976), for example, stated that attempting to learn English through phonics can be a disaster for the Spanish-speaking child. There are many sounds in English that have no phonological equivalent in Spanish, such as: no sound of h, no final nk, and no initial s consonant blends. Also, the pronunciations of many letters--the j, the d, the v, the r--vary according to different position within English words.

The second focus of ESL reading instruction has been "reading for meaning." The most frequently quoted articles on this topic are: Plaister (1968), Allen (1973), Norris (1970), Horn (1969), Eskey (1973), Wilson (1973), Saville-Troike (1973), Pierce (1975), Berman (1975), Been (1975), and Cowan (1974). These studies discussed reading and college level ESL learners. In the later works among these, there is a distinct switch from an emphasis on vocabulary to a stress on structural meaning. Moreover, these works advocate a greater emphasis on meaning at the beginning reading stage.

In the language experience approach, according to Ching (1976), "the children dictate from their own experiences those things of interest to them and which they may wish to share with others. The teacher writes down what the children relate and they see that what they say is important and can be written down and eventually read. Thus, the content of what the children read represents concepts that are part of their culture and are meaningful and important to them" (p. 33). For these reasons, Ching strongly advocated the use of the language experience approach in the ESL classroom. Thonis (1976) also highly recommended this approach for the Spanish-speaking child. The language experience approach was also suggested as an excellent beginning reading method for linguistically and culturally diverse learners by Smith and Johnson (1976) and Garcia (1974).

In conclusion, a variety of approaches or methods in teaching reading to ESL learners is advocated. But it would appear that an eclectic approach with characteristics of various methods is often needed.

Testing reading abilities among ESL learners. Since both a standardized reading test and a cloze test are used in this study, a review of the literature in these areas was conducted.

A number of investigators have dealt with the problem of using standardized testing with ESL learners. Mishra and Hurt (1970),

for example, investigated the reliability and predictive value of the Metropolitan Readiness Tests (MRT) when used with Mexican-American children whose spoken language in the home is Spanish. The data showed that the reliability of the MRT was lower with the sample of 73 Mexican-American elementary school subjects than reported in the manual (.85 vs. .91 to .94). In addition, they found that the correlations between the MRT and the Metropolitan Achievement Tests word knowledge and reading subtests were lower than the median correlations reported in the test manuals.

Another problem in this area is that the evaluation and placement of ESL students in appropriate classrooms is difficult if based on scores from English proficiency tests alone. As a case in point, Fowler (1973) studied the extent to which listening capacity of Spanish-speaking first-grade children, as measured by the Brengelman-Manning Linguistic Capacity Index, could predict reading achievement as measured by subtests of the Metropolitan Achievement Tests. Among other things, Fowler found that the ability to recognize noun, verb, and adjective forms, the ability to understand English function words, word order, and the ability to distinguish pairs of contrasting sounds, as measured by the Brengelman-Manning Test, were found to be highly correlated with the MAT vocabulary, grammar, and reading subtests; the correlation coefficients ranged from .49 to .58 and were significant at the .01 level.

In a related effort, Moran (1978) attempted to determine a score on Comprehensive English Language Test for Speakers of English as a Second Language (CELT) structure test in terms of a U.S. grade equivalent standard. Therefore, he compared ESL students' scores on the CELT and Stanford Intermediate Level I Reading Comprehension tests and found a high correlation, .80, between the two tests.

To summarize, standardized reading tests developed for native English-speakers have been used to measure ESL children's reading skills. Nevertheless, one must be aware of the potential bias in such tests, when used with ESL learners, and must interpret the results derived from them carefully.

As a measure for reading, the cloze procedure was introduced by Taylor in 1953. It was initially used to measure the readability of prose. The method consisted of deleting every nth word from a passage and replacing it with a blank of standard length. Since the 1960s, the cloze procedure has been extended to the measurement of reading skills per se.

The validity of cloze tests as measures of reading comprehension has been determined by correlating cloze tests with comprehension tests using the same passages as cloze tests. With adult subjects, for example, Taylor reported a correlation of .70 between a pre-cloze test followed immediately by a comprehension test and a correlation of .80 between a comprehension test followed by a post-cloze test.

Similar results were found by Bormuth (1969) with primary school subjects.

A few studies exist comparing native and non-native performance in cloze tests. Oller and Inal (1971) administered a cloze passage to foreign students and to native speakers of English. Native speakers consistently achieved nearly perfect scores while the average score for the non-native performers was approximately 65 percent. A later study by Oller, Bowen, Dien, and Mason (1972) compared cloze tests constructed in English, Thai, and Vietnamese. The native speakers of Thai and Vietnamese were ESL students and also took tests in English. The results indicated that translating a cloze passage from one language into another produces two tests of approximately equivalent difficulty for similar groups of native speakers of the respective languages.

There is, however, a lack of research on the cloze procedure in foreign language testing at the primary level. The only studies reported are by Anderson (1976), who used the cloze procedure to test primary English as a second language children in Papua, New Guinea and native-speaking children of Malay and Chinese in Singapore. Anderson was interested in the applicability of the cloze procedure as a measure of readability and reading comprehension with English as a second language learners. The major findings of the experiments with ESL learners as subjects were:

1. Cloze scores ranked passages in the same order of difficulty found by four experienced teachers of reading.
2. Cloze scores discriminated between the abilities of subjects on the cloze tests.
3. A number of different scoring procedures ranked passages in the same way as cloze scores.
4. Although some scoring procedures gave subjects higher individual scores, the ranking of subjects was virtually identical whichever scoring procedure was used.
5. Cloze scores reliably ordered subjects on the cloze tests.

Anderson's results from the experiment using the cloze procedure with Malay and Chinese speaking children in Singapore indicated that:

1. Cloze procedure ranked passage difficulty reliably and was in good agreement with experts' rankings (for both Malay and Chinese).
2. In both Malay and Chinese, cloze procedure discriminated between pupils at different levels in school.
3. Cloze rankings of pupils were objective and reliable for both languages.
4. Cloze scores correlated well with Malay-language, Chinese-language, and other school subjects.

5. In Chinese it made little difference to pupils' ranks whether scoring was based strictly on the original characters used in the passage or on characters that made sense within the context.

Thus, the cloze procedure has been found successful in discriminating ESL students according to their reading skills. Additionally, research shows that a cloze test retains its discrimination ability and difficulty level when it is translated into another language. The present study employs a cloze test in English and in Spanish and Vietnamese.

ESL learners' reading and listening comprehension skills. Children's listening comprehension abilities have been correlated with their reading comprehension abilities as measured by standardized reading tests (Durrell, 1969; Berger & Perfetti, 1977). Such investigations have indicated that listening and reading abilities are correlated. Because of this, listening ability has been used to estimate a child's reading expectancy. For example, if a child's reading comprehension level is lower than his/her listening comprehension level, he or she is believed not to have mastered certain reading skills; i.e., grapheme-phoneme relationships, rapid recognition of whole words, strategies for studying word order and word groups.

In a related vane, Carroll (1977) considered reading comprehension in the light of general language comprehension and in the light of the student's general cognitive maturity. He found that under normal circumstances, when the child has been brought up in a language-rich environment and has had good opportunities to learn to read, language comprehension, cognitive ability, and reading skills are at the same level. Furthermore, he found that, as the child grows older, reading skills exceed language comprehension, which in Carroll's opinion, reflects the fact that some reading skills are independent of language comprehension. For instance, the child may pronounce words when reading without understanding them.

In the case of ESL learners, one would expect lower correlations between the two skills; ESL students are not generally brought up in a rich English language environment. Yet, it is important to learn about ESL children's listening comprehension for three purposes: (1) to ascertain how much classroom instruction students understand; (2) to discover if a relationship exists between listening and reading levels; and (3) to aid in making decisions about the appropriate time to start reading instruction.

It was mentioned before that in the audio-lingual approach, reading instruction was delayed until some fluency was achieved in speech. Ebel (1978) observed that certain features of the audio-lingual approach can be found in ESL instruction. For example,

there are ESL programs in which ESL teachers emphasize oral language only and leave the teaching of reading to regular classroom teachers. Also, there are ESL programs in which reading is not introduced for six months, a year, or even two years (Ebel, 1978, p. 4). Thus, there is no consensus about the appropriate time to introduce reading in ESL. Concerning this problem, if ESL students' reading skills were shown to be highly correlated with listening skills, the argument of fluency in understanding English before reading would be supported. If, on the other hand, no correlation between the two skills was discovered, a notion of them as separate skills would be supported and would imply that reading instruction might not have to wait until students understand English.

ESL learners' first language background and performance in certain word-identification tasks. To predict children's second-language proficiency, constrastive analysis studies--a priori and a posteriori--have been conducted. Additionally, contrastive analysis has been applied to the study of adult ESL learners' reading skills.

The contrastive analysis hypothesis in linguistic theory claims that both in reception (attempting to understand and read the language and culture), and in production (attempting to speak and write the language as well as function in the culture), individuals transfer the forms and meaning of their native languages and cultures to the foreign language and culture.

The contrastive analysis hypothesis has come under increasing attack in linguistic investigation. Presently there exist two positions regarding the function and usefulness of constrastive analysis: The a priori view which states that a contrastive analysis can predict learning difficulties, and the a posteriori approach which holds that a comparison of the linguistic systems of the two languages in question is necessary to determine which learner errors arise from an influence of the native language and which are due to intralingual processes such as overgeneralization, ignorance of rule restrictions, and incomplete application of rules (Richards, 1971).

The a posteriori view makes contrastive analysis a tool for error analysis and has become widely accepted as a result of recent studies which show the importance of developmental errors in second language acquisition. Among these are case studies (Hernandez, 1970; Milon, 1974; Ravem, 1968), studies of groups of children with the same first language (L_1) background (Dulay & Burt, 1972, 1974; Ervin-Tripp, 1974), and few studies of children with various L_1 backgrounds (Dulay & Burt, 1974; Fathman, 1975). The case studies of children learning a second language (L_2) after complete proficiency in L_1 indicate that learning L_2 follows the usual developmental sequence for the native speaking children of the particular L_1.

Ervin-Tripp (1974) also found similarities between L_1 and L_2 acquisition in the group of children she studied. The subjects were English-speaking children between the ages of 4 and 9 who attended French-speaking schools in Geneva. The children seemed to work from simpler to more complex structures, to use meaning as a clue for interpreting syntactic cues, to relate word order to meaning, and to prefer simpler word order to more complex strategies.

In a related effort, Dulay and Burt (1972) analyzed data from Spanish-speaking children who were learning ESL and found that errors made by them reflected strategies used by children learning English as L_1. For instance, an error in "now she's putting hers clothes on" can be an overgeneralization of the possessive /-s/ from English. Interference errors from Spanish, like "bigs houses," were not found in the speech of the sample.

More recently, Dulay and Burt (1974) conducted an error analysis of English speech samples of Spanish-, Chinese-, Japanese-, and Norwegian-speaking children learning ESL. The errors made by the children were similar, being developmental rather than due to the interference from L_1.

As stated earlier, contrastive and error analyses have also been applied to adult learners' reading. Cowan (1976) suggested that learning to read a foreign language must be impeded by the learner's application of the perceptual strategies of his native

language. This was demonstrated in his study of perceptual strategies used in interpretation of second language sentences by adult learners with different backgrounds (Japanese reading English, Persians reading English, and English speakers reading Hindi).

Takayanagi (1975), on the other hand, discussed problems which adult Japanese speakers have when reading relative sentence structures in English. Takayanagi remarked that problems of perceiving a structure did not necessarily cause miscomprehension, but slowed the comprehension process.

The review of the literature shows that contrastive analysis has added to the knowledge of second-language learning. However, some of the few available studies have included relatively small numbers of subjects. Empirical studies involving many ESL learners, like the present investigation, are needed. The present study employs word-identification tasks which are similar to the structures used in the reviewed literature.

The relationship between ESL children's first and second language reading. During the past decade there has been an increase in bilingual education programs in the United States. One of the persistent concerns within these programs is whether to introduce reading in the first or second language of the enrolled children.

The notion that reading should be begun in the vernacular has been supported by studies like those of Berra-Vasquez (1953), Burns

(1968), Modiano (1966), and Österberg (1961) and is based on the following rationale: The child should first learn to make the symbol-sound-meaning relationship in the language in which he is most proficient. These investigators suggest that once a firm basis for reading has been established in the first language, transfer of reading skills to the second language may occur. For instance, once the child has learned that the letter a stands for /a/ in Spanish, it will not be an insurmountable task to learn that it can stand for /oe/ or /a/ or /e/ or /æ/, /ɛ/ or /ə/ in English.

Findings from bilingual immersion programs, on the other hand, support the view that reading can be first learned in the second language. The St. Lambert experiment (Lambert, 1972, 1973) showed that in reading competence in English, their native language, the children who were immersed in French curriculum, lagged behind their monolingual English counterparts until the end of the third grade when and after which they were equivalent. The Culver City Spanish Immersion project (Cohen, 1974) showed similar results for English-speaking students instructed in Spanish.

Individual, instructional, and socioeconomic factors in ESL learners' reading performance. The last section of this review will deal with demographic factors which may impinge on learning to read English as a second language. Among the factors to be considered are:

1. Sex differences
2. First language background
3. Length of residence in the United States
4. Amount of English spoken at home
5. Number of siblings and sibling position
6. Amount and nature of ESL instruction
7. Parents' socioeconomic level

These factors were chosen to be studied in the present investigation because of their pedagogical implications. If there is a relationship between these factors and ESL reading achievement, ESL programs and classroom teachers could allocate their limited instructional resources more efficiently.

1. Sex differences. In most American research with native speakers of English, one sees differences in reading ability between boys and girls. For instance, Nila (1953) tested the reading readiness of 300 first-graders and found no difference in readiness between boys and girls at that stage. At the end of the first grade, however, 63 percent of the reading failures were boys while only 37 percent were girls. McCarthy (1953) claimed that girls are better readers in elementary grades because they develop oral language ability faster than boys.

More recent studies indicate that the observed early superiority of girls in the United States may be due to cultural background,

rather than physical sex differences. Johnson's (1972) study found that in grades two through six, girls were superior readers in the United States and Canada, whereas boys excelled as readers in England and Nigeria. He concluded among other things that girls in the United States are often encouraged to take part in quiet activities, while boys engage more in physical activities. In England and Nigeria, reading ability of boys is more valued than in the United States and Canada. No research about differences in reading skills between ESL boys and girls could be found.

2. First language background. As discussed earlier in the section on contrastive analysis studies, several investigations have shown that errors made by children who are learning a second language are developmental rather than errors due to the interference from the native language (Dulay & Burt, 1972, 1974; Ervin-Tripp, 1974; Hernandez, 1970; Milon, 1974; Ravem, 1968). Fathman's (1975) study, not cited previously, deserves special attention here, since it was conducted in a school environment, much like the present investigation, and involved a reasonably large number of ESL children. In it she studied the relationship between age, language background, learning environment, and the sequence of certain English structures in English acquisition of 120 Korean and Spanish children, 6 to 14 years of age, enrolled in schools in the Washington, D.C. area. The tested productive oral language structures were:

1. Affirmative-Declarative	11. Negative
2. Articles	12. Past Participle-Irreg.
3. Present Participle	13. Subject Pronouns
4. Possessive	14. Object Pronouns
5. Present Tense-3rd Reg.	15. Possessive Pronouns
6. Comparative	16. Plural-Irreg.
7. Superlative	17. Imperative
8. Present Tense-3rd Reg.	18. Yes/No Question
9. Preposition	19. Wh-Question
10. Past Participle-Reg.	20. Plural-Reg.

The general sequence of structures in the study was similar to the one reported by Dulay and Burt (1974). The results suggested that age, language background, and language learning environment did not seem to change the order of the structures which were learned.

3. Length of residence in the United States. Studies with adult learners have indicated that time spent in an English-speaking country is not always a good predictor of success in learning English. Krashen et al. (1974) found that in the case of 21 foreign students, there was little association between exposure to English, as measured by the length of residence in the United States, and the students' performance on the structure subpart of the Michigan Test of English Language Proficiency. Krashen, Jones, Zelinski, and Usprich (in press) arrived at similar conclusions. In their study of 116 adult ESL students, years of formal instruction reported was a better

predictor of English proficiency than was time spent in an English-speaking environment. No published research was found about the effects of the length of residence on ESL children's success in language learning.

4. Number of siblings and sibling position. Sheldon and Carrillo (1952) studied the relationship of home environment to native English-speaking children's reading skills. They found that children in the earlier positions in the family were better readers than those in the later positions. Also, better educated parents' children read better than children whose parents were less educated. Hansen's study (1969), on the other hand, contradicted the finding by Sheldon and Carrillo. He concluded that there was no relationship between the child's ordinal position in the family and his reading ability. Thus, there is controversy about the relationship between sibling position and reading performance of native English-speakers. No research evidence was available about this matter for ESL learners.

5. Amount and nature of ESL instruction. Some recent studies have suggested that ESL instruction has had little effect on certain aspects of language learning in children immersed in a natural setting. Dulay and Burt (1973) reported that children in language programs in three different geographical locations acquired eight grammatical morphemes in the same order. Fathman (1975) found similar difficulty in ordering twenty grammatical structures for children who attended schools with different types of programs.

Hale and Budar (1970) reported that in their study the junior high ESL learners who were enrolled in regular classes without ESL instruction learned English faster and better than their counterparts who attended ESL classes. Additional support for this view comes from Fathman (1976) who reported a smaller gain in oral proficiency for ESL students who were in ESL classes for two hours per day when compared with students who attended ESL instruction a maximum of three hours per week. Based on the results of the study, Fathman recommended teachers minimize the time spent by the student in special ESL classes. Krashen (1976), like Fathman, claimed that for the ESL child, "intake" informal environments are sufficient. The class can at best provide only additional intake, and it appears to be the case that when children have access to rich intake environments, extra classes in second language are not necessary" (pp. 166-167).

The discussed studies suggest that children learn English as a second language without formal ESL instruction. However, the results of these studies should be examined carefully. There are many related variables which may affect language performance, such as the grade level, the teaching emphasis, the number of ESL children in the school, or the parents' socioeconomic status. These variables should be controlled in a study which wants to make recommendations for instructional practice. No research was available about the association between ESL instruction and ESL children's reading performance.

6. Parents' socioeconomic level. Ziros (1976) claimed that the effects of socioeconomic variables on Spanish-English bilinguals' reading acquisition have been ignored by the researchers. He implied that if children's socioeconomic variables were included, those would have a stronger influence on the reading acquisition of Spanish-speakers than the linguistic background.

Holick (1975), in a study involving 63 Czech-American bilingual fifth, sixth, and seventh grade students in several Texas schools, found no significant differences in reading vocabulary and comprehension scores between the bilingual students and monolingual English-speaking students with Czech-American background. Socioeconomic level was a significant factor in the reading ability of the students in the study; students from a high socioeconomic level read better than students from a low socioeconomic level.

The review of the literature showed that many demographic factors have been examined with respect to the educational performance of native English-speakers. Contrarily, the relation of sex differences, first language background, length of residence in the United States, number of siblings and sibling position, amount and nature of ESL instruction, and parents' socioeconomic level on ESL children's reading ability have received little or no attention in the literature. Fortunately, a considerable amount of research exists about the relation between first language background and children's second language proficiency. Yet, except for Fathman's studies (1975, 1976),

none of the investigation was conducted in classrooms. Moreover, according to Tarone, Swain, and Fathman (1976): "current research has not systematically evaluated the influence on second language acquisition of several important individual variables" (p. 25). Among these variables, they mentioned motivation, age, sex, personality, ability in the native language, type of exposure to the second language, and cultural identity.

Therefore, the examination of these factors among ESL learners appeared to be justified. In addition, the undertaking reported here will investigate the amount of English spoken at home, number of library visits, and hours of television watching. ESL teachers typically recommend home practice of English and television watching for their ESL students and encourage their students to visit the public library. Yet, it is not known whether these factors have a positive effect on ESL learning. All three activities increase exposure to English, but not enough is known about their effects on reading English; thus, they were deemed to warrant attention in this investigation.

Rationale

In this section, a rationale is stated for each research and ancillary question of the study.

1. Are there differences in the word-identification skills of native and ESL children?

The review of the literature showed that there are two contrary views concerning the importance of word-identification skills in reading comprehension among native English-speaking children. First, some educators and researchers emphasize the hierarchical order of word-identification skills and regard sufficient word-identification skills as a necessary condition for reading comprehension abilities. Some experiments even show a direct impact on comprehension of training children in word-identification skills. Second, the meaning orientation word-identification approach takes the position that the acquisition of skills is not a precondition of reading comprehension.

There is also conflicting evidence about the importance of word-identification skills for ESL reading comprehension. For the more advanced ESL reader, MacNamara's (1967) study supported emphasis on skills training while Harris (1966), Morris (1968), and Hatch (1974) regarded meaning-oriented reading instruction as more important. In elementary grades, both the phonics-oriented approaches and the language-experience method have been favored, depending on the viewpoint of the particular educator. These viewpoints appear to have arisen from classroom observations rather than research evidence. Yet, some of these same researchers recommended an eclectic approach to ESL instruction as most appropriate.

Prior research also supported the notion that some components of ESL children's reading skills may differ from those of native speakers'. Modifications were suggested in any teaching approach

for use with ESL learners. Therefore, ESL, bilingual, and classroom teachers might benefit from knowing which specific reading skills are different between the two groups.

2. Do word-identification skills have a positive relationship with ESL readers' comprehension skills?

There is research evidence indicating that among native English-speaking children training in word-identification skills may have an impact on reading comprehension. Training has been helpful, in particular, for poor readers whose reading process consists of several subskills rather than a unitary act. Again, it would help ESL and classroom teachers to assign appropriate instruction if they knew whether ESL students' word-identification skills at a higher reading level differ from those at a lower reading level. Differences in subskills between readers at the two levels would imply that there are developmental stages in the acquisition of such skills. Subsequently, if priorities had to be set in reading instruction, activities should focus on those skills which emerge first.

3. Are ESL students who understand spoken English well also good readers?

The literature showed that among native English-speaking children, listening and reading abilities are expected to be highly correlated. The literature review indicated that somewhat lower correlations are expected between the two skills in the case of ESL learners. It is important to discover if a relationship exists

between ESL children's listening and reading levels, since this information might help to determine the appropriate time to start reading instruction.

4. Do children whose first language is structurally close to English perform better on the word-identification tasks than children whose language is structurally remote?

A posteriori contrastive analysis studies have shown that learning a second language follows the usual developmental sequence for the native-speaking children of the particular first language. Thus, the learners' first language background does not interfere significantly in learning a second language. However, the few available studies have generally included fairly small numbers of subjects. Also, only oral language structures have been examined. It is important to know if performance on these structures in the written form is affected by the first language background.

This knowledge would add to the second-language-learning theory as well as be beneficial to ESL and classroom teachers. For example, instructors typically expect a Spanish-speaker to recognize English plurals better than a Vietnamese-speaker. Plurals in Spanish and English are formed in a similar way. The two languages regularly form the plural of a noun by adding -s. Vietnamese-speaking students are expected to have difficulties with the English plural because Vietnamese has no plural suffix. In Vietnamese the form of a noun

remains the same and the number of the noun is indicated by other words (Indochinese Refugee Education Guides, pp. 9-10).

5. Are children who read well in their first language also good readers in English?

The review of the literature did not reveal studies comparing ESL children's reading skills in their first and second languages. Yet, in placing ESL students and designing instruction, ESL and classroom teachers would benefit from knowing whether reading skills are universal (unaffected by the particular language being learned) or trans-lingual (if learned once, then more easily learned the second time). Also, it is important to know if trans-lingualism in reading is affected by the structure of the first language. To measure first-language reading skills, the cloze procedure has been used successfully by previous researchers (Oller, Bowen, Dien, & Mason, 1972; Anderson, 1976).

6. What is the relationship between word-identification and reading comprehension?

This question was included in order to learn about associations between word-identification skills and reading comprehension at varying ESL reading levels. The results will permit one to make statements about the validity and reliability of the word-identification tests as well as refine the conclusions about the relation of reading comprehension to specific word-identification skills.

7. What is the effect of certain individual, instructional, and socioeconomic characteristics on ESL students' reading comprehension?

The following factors were selected to be examined in this study: sex differences, first language background, length of residence in the United States, amount of English spoken at home, number of siblings and sibling position, hours of television watching per day, number of public library visits, amount and nature of ESL instruction, and parents' socioeconomic level. The review of the literature showed that many of these factors have been examined with respect to native English-speakers, but their relationships to ESL reading comprehension have not been examined. Therefore, these factors were chosen to be studied in the present investigation because of their pedagogical implications for ESL learners. If there is a relationship between any of these factors and ESL reading achievement, ESL programs and classroom teachers might be able to allocate their limited resources more efficiently.

Definition of Terms

Several terms are important to an understanding of this study. They are defined as follows:

Decoding is the ability to pronounce the printed word.

Word-identification is to understand or label words which have not been seen before by the reader. Word-identification encompasses phonics, structural and contextual analysis.

Phonics analysis is the ability to relate symbols to sounds.

Structural analysis is the ability to identify meaningful components of words.

Context analysis is the ability to examine the material surrounding an unknown word in order to determine its meaning.

Limited English-speaker (LES) is one term which describes recipients of special educational services mandated by bilingual laws such as Lau v. Nichols' decision of the U.S. Supreme Court and Title VII of the Elementary and Secondary Education Act (Dulay & Burt, 1978).

Pull-out ESL program means that students are separated from their regular classrooms for special ESL instruction during certain hours of the week.

CHAPTER II

THE STUDY

This chapter deals first with the design of the study, stating the research questions and hypotheses and explaining the dependent and independent variables in the study. Then, the experimental procedures are discussed. The measurement instruments, pilot testing, subjects, procedures, and data analysis are described in the chronological order in which they took place in the conduction of the study.

Design of the Study

Research Questions

This study was planned to investigate the relationship among word-identification, reading comprehension, and listening comprehension of ESL children. An additional purpose of the study was to compare word-identification and reading comprehension skills of non-native ESL learners and native English-speaking children. This investigation specifically focused on five major questions:

1. Are there differences in the word-identification skills of native and ESL children?
2. Do word-identification skills have a positive relationship with ESL readers' comprehension skills? That is, do ESL speakers at a higher reading level possess superior

word-identification skills than those reading at a lower reading level?

3. Are ESL students who understand spoken English well better readers than those who understand spoken English less well?
4. Do children with a first language that is structurally close to English perform better on the word-identification tasks than children with a first language that is structurally less close to English?
5. Are children who read well in their first language also good readers in English?

Research Hypotheses

In the study, the following hypotheses were tested:

Hypothesis One: Native English-speaking students will score higher than ESL students on the sub-sections of the beginning-, intermediate-, and advanced-level word identification tests.

Hypothesis Two: Advanced level ESL students will outscore their intermediate level counterparts on the sub-sections of the word-identification test.

Hypothesis Three: ESL students who score high on the listening comprehension test will also score high on the reading comprehension task. That is, there will be a positive correlation between ESL students' listening and reading comprehension scores.

Hypothesis Four: ESL students whose first language is close

to English in structure (Spanish) will score higher both on the plurals sub-section of the word-identification test and on the test as a whole than students whose first language is less close to English in structure (Vietnamese).

Hypothesis Five: ESL students who score high on a reading task in their first language will also score high on the reading comprehension task in English. That is, there is a positive correlation between reading skills in the first language and in English.

The following ancillary questions are also investigated:

1. What is the relationship between word-identification skills and reading comprehension among ESL students?
2. What is the effect of certain individual, instructional, and socio-economic variables on ESL students' reading comprehension?

Dependent Variables

The dependent variables in the study were scores in a test of word-identification (WI) and scores on a standardized test of reading comprehension (RC) of the ESL and native English-speaking subjects. A third dependent variable, a score on a listening comprehension test (LC), was also used the the ESL subjects. Reading skill in the first language was the fourth dependent variable.

Independent Variables

Grade level was an independent variable for the ESL and native English-speaking subjects. Two other major independent variables whose effect on the dependent variables with the ESL subjects were studied were the first language (L_1) background and reading skills in L_1. Additional data were gathered through investigations of school records and interviews with parents and teachers and were related to the following factors: age, sex, socio-economic status, parents' educational level, language spoken at home, length of residence in the U.S., and nature of classroom instruction.

Method

Measurement Instruments

Reading Comprehension. To measure reading comprehension skills of the ESL students, the reading sub-tests from the following Metropolitan Achievement Tests (MAT), were chosen: Primary I (1970) and Primary II (1971) for the second grade, Elementary (1971) for the fourth grade, and Intermediate (1971) for the sixth grade. Table 2.1 presents reliability data reported in the MAT manuals for these sub-tests.

As can be seen, the reliability for these sub-tests is high, ranging from .92 to .95. The MAT was standardized in the following manner: (1) experimental forms were administered to 27,000 students; (2) an item analysis was conducted; (3) the final versions of the

Table 2.1

Reliability Coefficients and Standard Errors of Measurement for the Reading Subtests of the MAT

	Form			
	Primary I	Primary II	Elementary	Intermediate
Grades	1.5-2.4	2.5-3.4	3.5-4.9	5.0-6.9
Items	42	44	45	45
Reliability				
r_{ke} [a]	.95	.93	.92	.93
r_{tt} [b]	.96	.95	.93	.93
Standard Error of Measurement				
Raw Score	2.2	2.0	2.5	2.6
Standard Score	2.5	2.8	3.9	3.8
Grade Equivalent	.2	.3	.4	.5

[a] Split-half coefficients, corrected by the Spearman-Brown formula.

[b] Saupe's estimate of Kuder-Richardson Formula 20.

Source: Teacher's Handbooks for the MAT.

test were administered to about 500,000 students in 225 school districts in 49 states; and (4) norms were developed using the results for 25 percent of the students at each grade level.

To illustrate the type of tasks contained in the MAT, a reading passage from the Elementary form is presented with its related questions.

> Ants are found in almost all parts of the world, and they are the most common insects on earth. Although many ants are hard workers, others do no work at all. One kind of ant that does not work is the Amazon ant. Amazon ants are fierce fighters, but they cannot dig their own nests or even feed themselves. They actually have slaves to do these things for them. The slaves, another kind of ant, are captured in battle by the Amazons.

21 Slave ants dig nests for--

A many insects
B hard workers
C Amazon ants
D only themselves

22 Amazon ants must be--

E tiny
F industrious
G hard
H warlike

23 In this story the word kind means--

A polite
B type
C nice
D master

24 All ants are--

E Amazons
F insects
G slaves
H workers

25 You can suppose that without slaves Amazon ants would--

A go to work
B run away
C make nests
D die

26 Amazon ants probably fight--

E because they are angry
F to capture slave ants
G to get their own food
H because they are ordered to

27 According to legend, there were people known as Amazons. They probably--

A were warriors
B couldn't feed themselves
C were strong workers
D were found in all parts of the world

28 The article's author is probably a(an)--

E soldier
F artist
G exterminator
H scientist

Word-identification. The word-identification tests, group-administered pencil and paper tests, designed by the Word Identification and Reading Research Group at the Wisconsin Research and Development Center of the University of Wisconsin, were chosen to investigate the relationship of the three sub-components of word-identification ability to overall reading comprehension (see Appendix A for a complete set of the tests). These tests consist of three broad sub-sections: phonic analysis, structural analysis, and contextual

analysis. The item selection was based on a review of literature on teaching and diagnosing word-identification skills in the beginning reading curriculum. The tests are designed to measure the commonly taught word-identification skills. The tests have three levels; one each for second, fourth, and sixth grade, and they assess the following components of word-identification:

1. Phonics: (a) the major invariant single-letter consonant correspondences, (b) phonics generalizations related to predictable variant single-letter consonant correspondences, (c) the major consonant cluster correspondences, (d) phonics generalizations related to single-letter vowel consonants, (e) the major vowel cluster correspondences and (f) phonic syllabication.
2. Structure: (a) affixes, (b) possessives, (c) compounds, (d) plurals.
3. Context: (a) intruded synthetic words, (b) intruded words, (c) cloze, (d) maze.

To illustrate the type of tasks contained in the word identification tests, an item from each of the test-components follows:

Phonics (Consonants)

For each row, look at the made-up word in the box and find the underlined part. Then look at the rest of the words in the row. See how they each have an underlined part, too? Now circle the word in the row whose underlined part sounds just like the underlined part of the word in the box.

(a)	fon	oat	din	mat
(b)	coth	ice	sold	cone
(c)	deach	brought	child	lock

Phonics (Vowels)

For each row, look at the made-up word in the box and find the underlined part. Then look at the rest of the words in that row. See how they each have an underlined part, too? Now circle the word in the row whose underlined part sounds just like the underlined part of the word in the box.

(d)	zell	feel	real	belted
(e)	poil	going	owl	boy

Phonics (Syllabication)

For each of the words below, circle the number of syllables in the word.

(f)	vacation	1	2	3	4	5

Structure (Affixes)

Each of the sentences below has a word missing. Read each sentence and then circle the word you think fits best.

(a) Blind people are _____

sighted sightful sightless

Structure (Possessives)

For each of the following sentences, decide if the underlined word shows belonging or ownership. If it does show ownership, mark YES, if it doesn't mark NO

(b) Charles' yard was very big. ‖ YES NO

Structure (Compound Words)

The words below are made-up compound words but they are built from real words. Draw a line between the two parts of each compound word.

(c) b e d s n a c k

Structure (Plurals)

Read each of the words below and decide if the word describes ONE thing, MORE than one thing, or does not tell how many. If the word describes one thing, circle ONE. If the word describes more than one thing, circle MORE. If the word does not tell how many, circle NEITHER.

(d) geese ‖ ONE MORE NEITHER

Context (Nonsense Word)

On the following pages you will find a story about a mysterious suitcase. At certain places in the story, words have been taken out and made-up words have been put in their places. These made-up words are underlined so you can fine them easily. Your job, as you read the story, is to decide which real word belongs in place of each made-up word. Once you decide which real word belongs in place of the made-up word, print the real word in the correctly-numbered space at the right. Your answers should always be only one word, and you should print them as neatly as you can.

(a) Mrs. Emory koosted in a little house. 1. _____

Her kitchen door looked out on tall trees.

In the summer the kitchen door stood wide kesor. 2. _____

Context (Intruded Word)

On the following pages you will find a story about a mysterious suitcase. In many sentences of the story, extra words (words which do not belong in the story) have been included. Your job, as you read the story, is to be a detective and find these extra words. Each time you find an extra word you should circle it.

(b) Mrs. Emory when lived in a little house. Her kitchen door looked out on tall inside trees. In the summer the the kitchen door stood wide open.

Context (Cloze)

On the following pages you will find a story about a mysterious suitcase. At certain places in the story, words are missing. Your job, as you read the story, is to be a detective and decide what words belong in the blank spaces. When you decide what each missing word is, print it as neatly as you can in the correctly-numbered space on the right-hand side of the page. Your answers should always be only one word.

(c) Mrs. Emory _____ in a little house. Her kitchen door looked out on tall trees. In the summer the kitchen door stood wide _____.

1. _____

2. _____

Context (Maze)

Read each sentence below. When you come to the part of the sentence where there are three word choices, circle the word which makes the most sense.

(d) I used to wish / sure / think that all dogs would bite me, but now I know better.

These tests were first developed in the spring of 1977. They were revised after a pilot testing involving 282 native English-speaking students in two elementary rural schools in Wisconsin in May 1977. Then, in the fall of 1977, the tests, together with the appropriate level MATs, were administered to 781 elementary school children in nine Wisconsin rural and suburban schools. There are three versions of each level of the test at the second-, fourth-, and sixth-grade level. In the fall 1977 study, each student took only one version of the test. Table 2.2 shows the number of students taking the test by grade level and by sub-sections of the test.

An item analysis, using the LERTAP (Laboratory of Educational Research Test Analysis Package), yielded the Hoyt reliability coefficients for the sub-sections at the three grade levels as shown in Table 2.3.

Listening Comprehension. One of the two reading passages at each grade level (2, 4, 6) of the auditory comprehension subtest of the Diagnostic Reading Scales (1972) by G. D. Spache was chosen to test the ESL speakers' listening comprehension skills. The manual of the Scales reports that 1,269 students were used for norming purposes. The correlation for the auditory comprehension subtest, obtained from 11 passages labeled A-C and used for initial testing with the corresponding B-D passages, was .99. Reliability coefficients for a 5-month interval was .94 in first grade, .67 in second, .90 in third. N. D. Bryant, who reviewed the Diagnostic Reading Scales in

Table 2.2

Numbers of Fall 1978 Native English-speaking Subjects for the Sub-sections of the Word-identification Test

Sub-section	Grade Level		
	2	4	6
Plurals[a]	236	86	97
Compound Words[a]	236	254	291
Maze	81	--	--
Consonants	81	86	97
Vowels	76	74	88
Syllabication	79	94	106
Possessives	--	74	88
Affixes	--	94	106
Cloze[a]	76	94	106
Nonsense Words[a]	--	74	88
Intruded Words[a]	79	86	97

[a]The sub-section differed in length or difficulty across grade levels.

Source: Johnson, D. D., et al. A correlational study of word-identification skills of reading. University of Wisconsin Research and Development Center, 1978 (in press).

Table 2.3

Hoyt Reliability Coefficients for the Sub-sections of the Word-identification Test for Native English-speaking Subjects

Sub-section	Grade Level		
	2	4	6
Plurals	.62	.78	.65
Compound Words	.89	.81	.89
Maze	.54	--	--
Consonants	.77	.83	.88
Vowels	.84	.90	.85
Syllabication	.87	.85	.81
Possessives	--	.80	.71
Affixes	--	.81	.84
Cloze	.44	.87	.90
Nonsense Words	.83	.93	.90
Intruded Words	--	.90	.87

Source: Johnson, D. D., et al. A correlational study of word-identification skills of reading. University of Wisconsin Research and Development Center, 1978 (in press).

The Sixth Mental Measurement Yearbook (1965), concluded by saying that the Scales provide one of the most meaningful approaches available for the diagnosis of reading and listening skills. Bryant pointed out, however, that the user of the auditory comprehension measure should not consider the level of a selection as a grade-level norm. The following quotation is from the review:

> While the manual does not discuss this problem, data from Table 7 in the manual make it apparent that regular classroom cases can understand material read to them on an average of two grade levels above their grade placement. In testing over 50 cases with this instrument, the reviewer finds that reading disability cases usually have auditory comprehension scores well above their grade placement, and it is clinically useful to treat any auditory comprehension score below grade placement as indicating a real comprehension problem (probably a general one and one which is likely to interfere with reading comprehension) [p. 821].

Questionnaire. A parent-student-teacher questionnaire (see Appendix D) was prepared to gather information about individual, instructional, and socioeconomic factors related to ESL children.

The form was designed to be filled out by the investigator who presented the questions to the students, parents, and teachers. The choice of questions was based on the previous research on reading among native English-speakers and ESL learners reviewed earlier in this study.

The questions touched upon the following demographic information:

1. Grade, age, and sex
2. Native country and language
3. Length of residence in the U.S.

4. Amount of English spoken at home

5. Number of siblings and sibling position

6. Amount of television watching

7. Visits to public library

8. Amount and nature of ESL instruction

9. Both parents' occupations and educational levels

ESL Students' Reading Comprehension in L_1 -- Cloze Tests in Spanish and Vietnamese. A review of literature indicated that a cloze passage, translated from one language to another, produces two tests of approximately equivalent difficulty when the nth word deletion is used (Oller, Bowen, Dien, & Mason, 1972). Anderson's research (1976) also supports the notion that the cloze procedure discriminates between subjects even though a cloze passage is prepared in a language other than English.

For this study, the two cloze passages in the "content" section of the WI test, one included in the intermediate form, the other in the advanced form of the test, were translated into Spanish and Vietnamese. The two bilingual individuals who translated the passages were both trained in linguistics.

The nth word deletion was not used in the English version of the passages; instead, the words had been omitted randomly. Therefore, the bilingual translators had to judge very carefully the semantic and syntactic comparability of the Spanish and Vietnamese deleted words with the English omitted. Then, the translated passages were

read and found acceptable by two other bilingual persons in the two languages of the translated passages (see Appendix C for the translated cloze passages).

Passages from each of the translated "cloze" tests in Spanish and Vietnamese follow:

Spanish: La Sra. Emory _____ en una casa. La puerta de su cocina data a unos arboles altos. Burante el verano la puerta de su cocina estaba completemente _____.	1. _____
	2. _____
Carlos Obrero vivía cerce en una _____ grande de dos pisos. La familia Obrero llevaba poco tiempo en el barrio. Carlos y la Sra. Emory se habían hecho buenos _____. Le gustaba sentarse en las escaleras que estaban frente a la puerte de ella y le gustaba verla hacer galletas.	3. _____
	4. _____
Vietnamese: Một hôm thỏ và khỉ ngồi _____. Trong lúc trò chuyện, cả hai đều không ngừng tật xấu của mình. Dĩ nhiên khỉ cứ gãi luôn tay _____, thỏ thì sở kẻ thù nào đó tấn công cứ nghếch _____ ngóng moi hướng. Cả hai con đều không yên.	1. _____
	2. _____
	3. _____

Pilot Study

A pilot study was conducted to provide information about the following:

1. Whether the MAT scores provided an adequate measure of the subjects' reading levels so that decisions about the appropriate WI tests could be made.
2. Whether the subjects could finish the three versions of the WI test in one hour.
3. Whether the MAT's judgment of the proper level of difficulty for a listening comprehension passage was correct.
4. Whether the questions on the teacher-student-parent questionnaire were clear and appropriate.

The pilot study took place in one Madison, Wisconsin, elementary school in January 1978. The investigator randomly selected three ESL children from the 47 ESL students in the school and administered the reading comprehension section of the MAT, the WI test, and the LC test to the three ESL students--two fifth graders and one second grader. The testing was conducted in two sessions during the same day. First, the children took the MAT test (Primary II form for the second grader; Intermediate form for the fifth graders). Then, based on the MAT scores, an appropriate form of the WI test was administered--the intermediate form in the case of the fifth graders and the beginning form in the case of the second grader. Since the intermediate and advanced forms of the WI test include the same items, with the

exception of one section, the cloze passage, there was no need to administer the advanced form of the WI test.

In addition to the MAT and WI tests, the LC test of the Diagnostic Reading Scales was also administered to the students. In this individually administered test, all the subjects answered correctly at least 50 percent of the questions from a passage equivalent to their MAT grade.

The pilot study showed that the choice of the MAT form should be based partly on the students' grade level and partly on the ESL teacher's recommendation. However, the reliability of these criteria is in question, since no data existed about the ESL students' reading ability, and the ESL teacher (an experienced teacher in the pilot study) was only able to give rough estimates of the students' reading levels. This is a universal problem at this stage in such studies. No data are available about the reliability of standardized reading tests when used with ESL students.

The ESL students in the pilot study took longer than was estimated to finish all three versions of the WI test. The ESL teacher in the pilot study regarded the questionnaire as appropriate. The investigator telephoned each subject's parents, all of whom were willing and able to provide the requested information which was not available from the teacher or the school records.

Subjects

Background. Madison, Wisconsin, like many other university towns, has families from abroad working as students and staff members whose children attend the public schools. Madison also has "limited-English-speakers."

The number of "limited-English-speaking" students in January 1978, as indicated by the Madison Public Schools, was 301; that is, 1.15 percent of Madison's total student population of 26,169. Although there were 32 different language groups represented, two groups, Spanish and Vietnamese speakers, comprised 54 percent of the "limited-English-speaking" students. The percent of Spanish and Vietnamese speakers were 40 and 14, respectively.

The school system has a special English as a second language program, which provides extra English instruction to "limited-English-speakers." With the increasing ESL student enrollment, the Madison ESL program has faced the problem which other bilingual/ESL programs in this country have faced: assessment of ESL children's language skills. Therefore, the school system approved of the proposal for this study in December 1977. At an ESL staff meeting in January 1978, the investigator explained the study to the 12 ESL teachers, and made arrangements to meet with them individually to discuss their suggestions and schedule the testing sessions.

The ESL program in Madison is a "pull-out" program. That is, the children come for extra English instruction for certain hours

during a day or a week. Table 2.4 shows the total number of students enrolled in the Madison ESL program in January 1978. As the table indicates, 188 students and 21 schools were involved. The number of students per school ranged from 1 to 25. According to the Madison ESL program records of January 1978, 66 out of the 188 students (35 percent) were in kindergarten or first grade.

ESL Subjects in the Study. The ESL subjects were students enrolled in the Madison Public Schools ESL Program in 1977-78. The study examined students who read at the second-grade level or above. Therefore, the 66 kindergarten and first-grade children mentioned earlier were excluded from the study. The school system required students involved in the study to have a permission form signed by a parent--a regular procedure in the system's research studies. (See Appendix E for a copy of the form and the accompanying note from the ESL teacher, both prepared by the investigator.) The ESL teachers generally have frequent contact with their students' parents. For this study, the teachers volunteered to translate the form, telephone the parents, or visit the home if needed to attain the signature from the non-English-speaking parents. The permission forms were returned by 105 students, 86 percent of the 122 students to whom they were sent. Complete test data for the statistical analysis were secured for 91 of these students. This sample represents 75 percent of the total population of students in the Madison ESL program who read at the second-grade level or above. Table 2.5 shows the distribution of the 91 students in the study by schools.

Table 2.4

Number of Students in the ESL Program in the Madison Public Schools in January 1978

School	ESL Students
	Number
East High	19
LaFollette High	1
Madison Memorial High	12
West High	25
Allis Elementary	0
Badger Elementary	0
Cherokee Elementary	0
Crestwood Elementary	0
Dudgeon Elementary	0
Elvehjem Elementary	0
Emerson Elementary	0
Falk Elementary	0
Franklin Elementary	9
Glendale Elementary	0
Gompers Elementary	2
Hawthorne Elementary	6
Hoyt Elementary	0
Huegel Elementary	0
Kennedy Elementary	0
Lake View Elementary	0
Lapham Elementary	0
Jefferson Middle	6
Leopold Elementary	4
Lincoln Middle	3
Longfellow Elementary	12

(continued)

Table 2.4

Number of Students in the ESL Program in the Madison Public Schools in January 1978 (continued)

School	ESL Students
	Number
Lowell Elementary	10
Marquette Middle	5
Lindbergh Elementary	0
Mendota Elementary	0
Midvale Elementary	0
Muir Elementary	8
Odana Elementary	0
Orchard Ridge Middle	4
Randall Elementary	1
Sandburg Elementary	0
Schenk Elementary	1
Sennett Middle	0
Sherman Middle	2
Shorewood Elementary	47
Spring Harbor Elementary	2
Van Hise Middle	8
TOTAL	188

Source: The Madison Public Schools ESL Program Records, 1978

Table 2.5

Number of ESL Subjects in the Study by School

School	Subjects in the Study	
	Number	Percent
East High	6	6.6
Franklin Elementary	4	4.4
Hawthorne Elementary	4	4.4
Jefferson Middle	3	3.3
Leopold Elementary	4	4.4
Longfellow Elementary	7	7.7
Lowell Elementary	11	12.1
Marquette Middle	2	2.2
Memorial High	7	7.7
Muir Elementary	4	4.4
Orchard Ridge Middle	4	4.4
Shorewood Elementary	10	10.9
Van Hise Middle	7	7.7
West High	18	19.8
TOTAL	91	100.0

Table 2.6 indicates that 48.3 percent of the ESL subjects were elementary school students, 31.4 percent were high school students, and 17.6 percent were middle school students. These percentages correspond to the distribution by schools of the total number of the ESL students in the Madison Public Schools in 1977-78. As seen in Table 2.5, 54.8 percent of the ESL students were in elementary schools, while the percentages in high and middle schools were 30.3 and 14.9, respectively. As indicated in Table 2.6, the 91 subjects were in all grades, from the second through the twelfth.

Table 2.7 shows that the subjects were from 21 different language groups.

The Spanish and Vietnamese speakers formed the largest groups; the Spanish comprised 36.3 percent and the Vietnamese 16.5 percent of the total sample. The figures correspond closely to the percentages concerning the "limited-English-speakers" in the Madison Public Schools, discussed earlier in this chapter on p. 67.

The Native English-Speaking Subjects in the Study. The sample of the native English-speakers in the study were the 781 students at the second-, fourth-, and sixth-grade levels who took the WI tests and the MAT in the fall of 1977, as described earlier in this chapter on p. 59.

Procedures

The study was conducted during February and March, 1978. Table 2.8 presents the testing schedule and the number of students involved.

Table 2.6

Number of ESL Subjects in the Study by Grade

Grade	Subjects in the Study	
	Number	Percent
2	12	13.2
3	7	7.7
4	13	14.3
5	12	13.2
6	4	4.4
7	5	5.5
8	7	7.7
9	10	11.0
10	8	8.8
11	4	4.4
12	9	9.9
TOTAL	91	100.0

Table 2.7

Number of ESL Subjects in the Study by First Language

Language	Subjects in the Study	
	Number	Percent
Afrikaans	3	3.3
Amharic	3	3.3
Arabic	4	4.4
Bengali	1	1.1
Chinese	1	1.1
Edo	1	1.1
Hungarian	1	1.1
Ibo	2	2.2
Indonesian	1	1.1
Japanese	6	6.6
Korean	1	1.1
Laotian	1	1.1
Lingala	1	1.1
Malay	1	1.1
Hmong	2	2.2
Norwegian	2	2.2
Persian (Farsi)	6	6.6
Portugese	2	2.2
Spanish	33	36.3
Vietnamese	15	16.5
Yoruba	4	4.4
TOTAL	91	100.0

Table 2.8

Testing Schedule and Number of Students

Test	Number of Students	Order of Testing Session		
		1	2	3
MAT				
Primary 1	18	X		
Primary 2	24	X		
Elementary	19	X		
Intermediate	30	X		
WI[a]				
Beginning	45		X	
Intermediate	23		X	
Advanced	23		X	
LC				
Story 2c	45		X	
Story 4a	23		X	
Story 6a	23		X	X[b]
CLOZE				
Spanish	8		X	
Vietnamese	6		X	

[a]Students whose MAT grade equivalent scores ranged from 1.5 to 3.5 took the beginning form. The range for the intermediate form was 3.5-5.5 and 5.5 or above for the advanced.

[b]In a high school, 20 students took the LC test during a third testing session.

MAT Testing. The reading comprehension sections of forms Primary I, Primary II, Elementary, and Intermediate of the MAT were selectively administered to 105 students in 15 different schools. The choice of a particular form was based partly on the students' grade placement and age and partly on the ESL teachers' recommendations about their reading ability. The investigator, following the directions given in the test manual, conducted the MAT testing with individuals and with groups of 2 to 13 students. In three schools with only a few ESL students, the two ESL teachers involved administered the MAT tests to a total of 10 students.

WI Testing. Based upon the pilot study, the investigator decided to make new test booklets and leave out some parts of the "context" sections. In the beginning form, the eliminated sections were "cloze" and "intruded words;" in the intermediate and advanced forms, "nonsense words" and "intruded words" were eliminated. Thus, the "context" sections of the beginning form included "maze," and the intermediate and advanced forms included "cloze," in their final forms. The investigator chose to include "maze" and "cloze" because there are frequent references in the literature to their use with ESL students. No references were found to support the use of "nonsense words" and "intruded words" as measures of ESL reading ability.

Table 2.9 shows the sub-sections and the number of items in the revised form of the WI test.

Table 2.9

Sub-sections and the Number of Items in Them in the Forms of the WI Test Used with the ESL Subjects in the Study

Level	Sub-section	Number of Items	
Beginning	Plurals	5	
	Compound Words	15	
	Maze	5	
	Consonants	20	
	Vowels	20	
	Syllabication	20	
		TOTAL	85
Intermediate and Advanced	Plurals	20	
	Compound Words	15	
	Consonants	20	
	Possessives	20	
	Vowels	20	
	Affixes	20	
	Cloze[a]	25	
	Syllabication	20	
		TOTAL	160

[a]The intermediate and advanced level tests were the same except for the cloze sub-section. The intermediate level story was "The Mystery of the Suitcase," a third-grade level story, from How It Is Nowadays, Reading 720 (pp. 70-77); the advanced level story, a fifth-grade level story, was "Nature Cannot Be Changed" from Tell Me How the Sun Rose, Reading 720 (pp. 210-212).

The students, divided according to their MAT grade equivalent scores, took one of the following WI test forms: beginning, intermediate, or advanced. Forty-five students, whose MAT grade equivalent scores ranged from 1.5 to 3.5, took the beginning form. The range for the intermediate form was 3.5 to 5.5 and 5.6 or above for the advanced. There were 23 students who took the intermediate form and 23 students who took the advanced form. Of the 105 students who took the MAT test, 2 students scored below the minimum grade equivalent for the WI test (1.5), 2 students moved from Madison before the WI testing, and 10 students were absent on the day of the WI testing in their schools. Thus, the final sample for the investigation included 91 subjects.

The WI testing again took place in the ESL classes where the investigator administered the WI tests. In most cases, the directions for the tests had to be simplified and more examples had to be given. Approximately 10 percent of the subjects took the test individually, while the rest were tested in groups. The size of the group varied from 2 to 10, depending on the availability of the subjects in each school. The testing sessions for the beginning level subjects took approximately 30 minutes; 45 to 60 minutes were standard for intermediate and advanced level students. Due to the small size of the testing groups, the students were able to finish the tests, except in a high school where only 45 minutes was allocated for the ESL class. The 5 slowest students in that class were given a chance to finish the test 2 days later.

LC Testing. Three listening comprehension passages from the Diagnostic Reading Scales were selected: Story 2c at the 2.8 grade reading level, Story 4a at the 4.5 grade reading level, and Story 6a at the 6.5 grade reading level. Answer sheets were prepared for each story using the questions from the Scales; there were 7 questions in Story 2c, while Stories 4a and 6a each had 8 questions (see Appendix B for the 3 stories and the answer sheets). The 3 passages, read by a male native speaker of English, were tape-recorded. The investigator administered the LC test after the WI test in a single testing session, except in a high school were 20 students took the LC test at a separate testing session. Prior to the LC test, the subjects were told that they would hear a story only once and that afterwards they would be asked questions about the story. The subjects responded on an answer sheet to the questions about the passage. The investigator read each question aloud allowing the subjects to work on the answers before moving to the next question. The elementary school children were assisted in writing down the answers by the investigator and/or those ESL teachers who had elected to stay in the classroom during the testing. All the subjects were instructed not to worry about correct spelling or writing in whole sentences.

Parent-Student-Teacher Questionnaire. After the LC test, the middle and high school students of the study filled out the information on the questionnaire. Later, the investigator "spot-checked"

5 high school students' answers by calling their parents and found the students' answers to be consistent with the parents' answers. In the elementary schools, the ESL teachers helped to answer many of the questions. However, after the testing, the investigator contacted all the elementary school subjects' parents or sponsors to request that they complete the questionnaire sheet. The parents willingly answered the questions. Their responses to the questions are reported descriptively in Chapter III.

Cloze Tests in Spanish and Vietnamese. After finishing the MAT, WI, and LC tests, the Spanish and Vietnamese subjects were asked to read and complete one of the two translated cloze passages in their first language. The subjects who took the intermediate forms of the WI test read a translation of the story "Nature Cannot Be Changed," a fifth-grade level story, while the advanced level students read a third-grade level story, "The Mystery of the Suitcase." Thus, the subjects had a story which they had not read in the English version.

In the final analysis, 8 of the 35 Spanish-speaking students, 2 middle school students, and 6 high school students, were able to read in Spanish; while 6 of the 15 Vietnamese-speaking students, 2 middle school students, and 4 high school students, were able to read the Vietnamese story.

Statistical Analysis

The dependent variables in the study were reading comprehension

(RC), word-identification (WI), listening comprehension (LC), and reading comprehension in the first language. The dependent variables were assessed using the following measures: the reading comprehension section of the Metropolitan Achievement Test (MAT), a nonstandardized word-identification test (WI), the listening comprehension section of the Diagnostic Reading Scales, and a cloze passage translated into the first language.

The data were analyzed using the SPSS statistical program (Statistical Package for the Social Sciences, 1975). For the data analysis, the subjects' scores were computed on the dependent measures of RC, WI, and LC. The MAT scores were coded as standard scores instead of raw scores, in order that comparisons could be made among all the subjects. Table 2.10 presents the mean standard scores, standard deviations, and numbers of subjects at the beginning, intermediate, and advanced levels. Each subject's raw scores on the sub-sections of the WI and on the test as a whole were computed. The scores were translated into percentages on the LC test and on the Spanish and Vietnamese cloze passages. The information on the parent-student-teacher questionnaire was coded for the 91 subjects (see Appendix F for coding procedures).

Questions relative to the performance of the native English-speaking and ESL students on the reading comprehension and word-identification measures and the ESL students' listening comprehension and first language skills provided the stimuli for the investigation.

Table 2.10

Mean Standard Scores, Standard Deviations, and Numbers of Subjects for the ESL Subjects at the Beginning, Intermediate, and Advanced Levels on the Mat Test

Level	mean	s.d.	n
Beginning	55	15.35	45
Intermediate	63.26	14.43	23
Advanced	74.61	14.12	23

These questions were then put into the form of null hypotheses. The hypotheses were:

Hypothesis One: There are no differences in the scores on the sub-sections of the beginning-, intermediate-, and advanced-level word-identification tests between native English-speaking (NAT) and ESL students.

The following null hypotheses were tested for each sub-section of the word-identification test at the Beginning (Beg), Intermediate (Int), and Advanced (Adv) levels:

$H_{1,1}$ (Plurals, Beg) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,2}$ (Compound Words, Beg) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,3}$ (Maze, Beg) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,4}$ (Consonants, Beg) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,5}$ (Vowels, Beg) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,6}$ (Syllabication, Beg) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,7}$ (Plurals, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,8}$ (Compound Words, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,9}$ (Consonants, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,10}$ (Possessives, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,11}$ (Vowels, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,12}$ (Affixes, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,13}$ (Cloze, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,14}$ (Syllabication, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,15}$ (Plurals, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,16}$ (Compound Words, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,17}$ (Consonants, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,18}$ (Possessives, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,19}$ (Vowels, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,20}$ (Affixes, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,21}$ (Cloze, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,22}$ (Syllabication, Adv) : $\mu_{NAT} = \mu_{ESL}$

Hypothesis Two: There are no differences between ESL subjects' scores on the sub-sections of the word-identification test at the intermediate (Int) and advanced (Adv) levels, that is:

$H_{2,1}$ (Plurals) : $\mu_{Int} = \mu_{Adv}$

$H_{2,2}$ (Compound Words) : $\mu_{Int} = \mu_{Adv}$

$H_{2,3}$ (Consonants) : $\mu_{Int} = \mu_{Adv}$

$H_{2,4}$ (Possessives) : $\mu_{Int} = \mu_{Adv}$

$H_{2,5}$ (Vowels) : $\mu_{Int} = \mu_{Adv}$

$H_{2,6}$ (Affixes) : $\mu_{Int} = \mu_{Adv}$

$H_{2,7}$ (Cloze) : $\mu_{Int} = \mu_{Adv}$

$H_{2,8}$ (Syllabication) : $\mu_{Int} = \mu_{Adv}$

Hypothesis Three: There is no relationship between ESL subjects' reading and listening comprehension scores. The correlation coefficients for these scores for each subject at the three levels of word-identification skills will be zero.

Hypothesis Four: There are no differences in the scores of Spanish-speaking (SP) ESL students and Vietnamese-speaking (VIET) ESL students on the plurals sub-section of the WI test and on the test as a whole at the beginning (Beg), intermediate (Int), or advanced (Adv) levels, that is:

$H_{4,1}$ (Plurals, Beg) : $\mu_{SP} = \mu_{VIET}$

$H_{4,2}$ (Plurals, Int) : $\mu_{SP} = \mu_{VIET}$

$H_{4,3}$ (Plurals, Adv) : $\mu_{SP} = \mu_{VIET}$

$H_{4,4}$ (WI, Beg) : $\mu_{SP} = \mu_{VIET}$

$H_{4,5}$ (WI, Int) : $\mu_{SP} = \mu_{VIET}$

$H_{4,6}$ (WI, Adv) : $\mu_{SP} = \mu_{VIET}$

Hypothesis Five: There is no relationship between ESL subjects' reading skills in their first language and in English. The

correlation coefficient associated with the RC scores in English and cloze scores in the first language will be zero.

A variety of analyses were performed to determine whether or not these null hypotheses should be accepted or rejected. Two statistical procedures, namely, t test and correlation, were employed. T tests examined the hypothesis about differences in the native English-speaking and ESL subjects' performance on the sub-sections of the WI test at the beginning, intermediate, and advanced levels. To analyze differences between ESL subjects at the intermediate and advanced levels, t tests were performed on the sub-sections of the WI tests. T tests were also used to analyze differences in the mean scores of the Spanish and Vietnamese speakers on the plurals sub-section and on the entire test.

T test is a statistical procedure to test the significance of difference between two or more sample means. In order to use the t distribution, for tests based on two or more samples, one must assume that the populations sampled are normal and that the population variances are homogeneous (Hays, 1973, pp. 407-410). However, Hays states that "in practical situations these assumptions are sometimes violated with rather small effect on the conclusions" (p. 410). The present experimenter is willing to assume that the population distributions of the sample scores in this study are normal due to the considerable sizes of the samples. The sample

variances approach equality justifying the assumption of equal population variances.

To test the hypotheses concerning the comparison of the ESL subjects' reading in the first language and English and the comparison of the ESL subjects' listening and reading comprehension skills, the Pearson product moment correlations were calculated for the two dependent continuous variables. Since this study is exploratory, without previous research results to rely on, probability levels of .01, .05, and .10 were reported throughout the study. The investigator set the .10 levels as the minimum probability level acceptable for judgments of statistical significance.

To examine the ancillary concern about the relations between ESL subjects' performance on the word-identification and reading comprehension measures, the LERTAP item-analysis was performed. This analysis yielded an intercorrelation matrix on the sub-sections of the word-identification test and the reading comprehension variable (MAT). The correlation coefficients were used to determine the extent any sub-section and the test as a whole were related to the MAT. Squaring a correlation coefficient gave a value, the coefficient of determination, which indicated the proportion of the predictability of the dependent variable, reading comprehension (MAT), from any of the sub-sections or the entire WI test (Hays, 1973, pp. 625-628).

The data about the ESL subjects' individual, instructional, and socio-economic variables were organized into tabular form to be presented in Chapter III of this study.

CHAPTER III

RESULTS AND DISCUSSION

Introduction

The present study was designed to explore the relations among ESL children's reading comprehension, word-identification, and listening comprehension skills. The study had five major focal points which were stated as directional hypotheses and then formulated into null hypotheses for the statistical analysis.

First, the study compared ESL subjects' word-identification skills with those of native English-speaking children who read at the second-, fourth-, and sixth-grade reading levels. Results of the testing yielded total scores for each pupil on the sub-sections of the WI test at the beginning, intermediate, and advanced levels. The mean scores of ESL subjects on the sub-sections at each level were compared to those of the sample native English-speakers. The null hypothesis of no difference between the means was tested using the t test statistical technique.

The second point of concern in this research was comparing ESL children's word-identification skills at two different reading levels. Again t tests were performed to test the hypothesis of no difference in the subjects' mean scores on the sub-sections between the intermediate and advanced levels of the word-identification test.

Third, this study was to determine the relation between ESL children's reading and listening comprehension skills. Reading comprehension was measured with the reading comprehension section of the Metropolitan Achievement Test (MAT). The listening comprehension section of the Diagnostic Reading Scales assessed listening comprehension. A null hypothesis, assuming no relation between listening and reading comprehension skills, was stated and tested through the statistical technique of the Pearson product moment correlation. This technique yielded a numerical index of the relation between the variables, reading and listening comprehension, at the three levels, namely, beginning, intermediate, and advanced.

The fourth major point in the study was to ascertain whether first language affects ESL children's knowledge of English structure. According to contrastive analysis (CA), one might expect significant differences in the answers by students from different language backgrounds. For instance, one would expect Spanish speakers to do better in the structural analysis sub-sections of the WI test than Vietnamese speakers whose language structure differs from English more than Spanish differs.

With the exception of the plurals test, CA predictions could not be applied with the items in the WI structure sub-sections because the items did not test structures which are different in English, Vietnamese, and Spanish. Therefore, no difference in the performance was expected in the "possessives," "affixes," and "compound" sub-

sections of the structure part. On the other hand, differences were predicted in the "plurals" section due to the native language background of the subjects. Spanish-speaking subjects were expected to have a high number of correct responses because plurals in Spanish and English are formed in a similar way. The two languages regularly form the plural of a noun by adding -s. Vietnamese-speaking students were expected to have difficulties with the English plural because Vietnamese has no plural suffix. In Vietnamese the form of a noun remains the same, and the number of the noun is indicated by other words (Indochinese Refugee Education Guides, pp. 9-10).

Finally, the present study examined whether a relation exists between reading skills in the first and second language. Cloze passages translated into Spanish and Vietnamese, the two largest linguistic groups in the study, measured the first language reading skills while the MAT scores represented second language reading comprehension ability. The Pearson product moment correlation was used to determine whether a relation existed between the first and second language reading skills.

In all, five major hypotheses were tested. In the remaining sections of this chapter, each hypothesis is restated and followed by the results of the statistical analyses of the data. Later, the data related to the ancillary concern of the correlation between ESL students' performance on the WI sub-sections and the MAT are explained

by means of an intercorrelation matrix on the sub-sections of the WI test and the MAT test. The last section of this chapter presents the data about the ESL subjects' individual, instructional, and socio-economic characteristics organized in tabular form. Noticeable patterns are discussed regarding these independent variables and their relation to ESL children's reading comprehension.

The following questions were formulated for discussion:

1. Is ESL students' reading performance affected by sex, length of residence in the U.S., amount of English spoken in the home, sibling position, hours of television watching, and number of library visits?
2. Is ESL students' reading performance affected by amount of ESL instruction in the U.S. and in the native country?
3. Is ESL students' reading performance affected by mothers' and fathers' occupations and years of education?

Testing of Hypotheses

Hypothesis One: There are no differences in the scores on the sub-sections of the beginning-, intermediate-, and advanced-level word-identification tests between native English-speaking (NAT) and ESL subjects.

The null hypotheses at the beginning level were:

$H_{1,1}$ (Plurals, Beg) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,2}$ (Compound Words, Beg) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,3}$ (Maze, Beg) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,4}$ (Consonants, Beg) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,5}$ (Vowels, Beg) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,6}$ (Syllabication, Beg) : $\mu_{NAT} = \mu_{ESL}$

Table 3.1 presents the mean scores, standard deviations, and numbers of subjects for the NAT and ESL subjects at the beginning level. Results of $\underline{t}$ tests among the NAT and ESL subjects' mean scores calculated on all the sub-sections are shown in Table 3.2. As indicated in Table 3.2, all mean differences, except those on "compound words," "maze," and "consonants" were significantly different between the two groups. The highest $\underline{t}$ values were calculated for the "plurals" and "vowels" sub-sections. Null hypotheses $H_{1,1}$; $H_{1,5}$; and $H_{1,6}$ were rejected. This means that there was a significant difference in the performance of the two comparison groups on the sub-sections mentioned in those hypotheses. On the other hand, no significant difference existed on the three remaining sub-sections, namely "compound words," "maze," and "consonants." Thus, null hypotheses $H_{1,2}$; $H_{1,3}$; and $H_{1,4}$ were not rejected.

Table 3.1

Mean Scores, Standard Deviations, and Numbers of Subjects for the NAT and ESL Subjects on the Sub-sections of the WI Test at the Beginning Level

Sub-section	Group					
	Native English-Speaking			ESL		
	mean	s.d.	n	mean	s.d.	n
Plurals	4.31	1.07	236	3.62	1.27	45
Compound Words	13.16	3.01	236	13.31	2.54	45
Maze	3.11	1.44	81	3.22	1.38	45
Consonants	9.35	4.23	81	8.36	3.49	45
Vowels	10.72	4.83	76	7.29	3.42	45
Syllabication	11.46	5.02	79	9.98	4.35	45

Table 3.2

Results of t Tests among Native English-speaking (NAT) and ESL Subjects in the Sub-sections of the Beginning Level WI Test

Sub-section	Calculated t value
Plurals	3.84***
Compound Words	-.31
Maze	-.42
Consonants	1.58
Vowels	4.18***
Syllabication	1.66*

*** $p < .01$

* $p < .10$

The null hypotheses at the intermediate level were:

$H_{1,7}$ (Plurals, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,8}$ (Compound Words, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,9}$ (Consonants, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,10}$ (Possessives, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,11}$ (Vowels, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,12}$ (Affixes, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,13}$ (Cloze, Int) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,14}$ (Syllabication, Int) : $\mu_{NAT} = \mu_{ESL}$

The mean scores, standard deviations, and numbers of subjects for the two comparison groups at the intermediate level are presented in Table 3.3. It is evident from examining Table 3.3 that the NAT subjects scored higher than the ESL subjects on each sub-section. To determine whether the differences in the mean scores were significant, t tests were performed on each sub-section. Table 3.4 shows that there were significant differences at the .10 level in the performance of the NAT and ESL subjects on five sub-sections, namely "plurals," "consonants," "vowels," "affixes," and "syllabication." The three sub-sections without significant differences between the two groups were "compound words," "possessives," and "cloze." Thus, null hypotheses $H_{1,7}$; $H_{1,9}$; $H_{1,11}$; $H_{1,12}$; and $H_{1,14}$ were rejected, while null hypotheses $H_{1,8}$; $H_{1,10}$; and $H_{1,13}$ were not rejected.

Table 3.3

Mean Scores, Standard Deviations, and Numbers of Subjects for the NAT and ESL Subjects on the Sub-sections of the WI Test at the Intermediate Level

Sub-section	Group					
	Native English-Speaking			ESL		
	mean	s.d.	n	mean	s.d.	n
Plurals	13.62	3.68	86	11.48	4.04	23
Compound Words[a]	8.53	4.16	545	7.57	2.69	23
Consonants	13.79	4.35	86	10.78	4.69	23
Possessives	14.14	3.94	76	13.35	4.30	23
Vowels	13.66	5.33	74	10.13	3.61	23
Affixes	16.57	3.36	94	12.22	3.41	23
Cloze	17.80	5.32	94	16.00	5.35	23
Syllabication	15.54	4.00	94	10.87	4.94	23

[a]The mean score, standard deviation, and number of subjects for Native English-speakers' "compound words" sub-section represents the combined scores of the intermediate and advanced level subjects.

Table 3.4

Results of t Tests among Native English-speaking (NAT) and ESL Subjects in the Sub-sections of the Intermediate Level WI Test

Sub-section	Calculated t value
Plurals	2.43*
Compound Words	1.10
Consonants	2.90***
Possessives	.83
Vowels	2.97***
Affixes	5.55***
Cloze	1.45
Syllabication	4.78***

***$p < .01$

*$p < .10$

At the advanced level, the null hypotheses were:

$H_{1,15}$ (Plurals, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,16}$ (Compound Words, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,17}$ (Consonants, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,18}$ (Possessives, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,19}$ (Vowels, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,20}$ (Affixes, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,21}$ (Cloze, Adv) : $\mu_{NAT} = \mu_{ESL}$

$H_{1,22}$ (Syllabication, Adv) : $\mu_{NAT} = \mu_{ESL}$

Table 3.5 presents the mean scores, standard deviations, and numbers of subjects for the NAT and ESL subjects at the advanced level. The mean score of the NAT subjects on the "compound words" sub-section represents a combined score of the intermediate and advanced level NAT subjects, which may explain its being lower than the ESL subjects' mean score at the advanced level on this sub-section. "Possessives" is another sub-section where the ESL students surpassed the NAT subjects. The calculated $\underline{t}$ values for the difference between the means of the two samples are shown in Table 3.6. An examination of the table indicates that differences between the mean scores of the two groups were significant for five of eight sub-sections, namely "plurals," "consonants," "vowels," "affixes," and "syllables."

Table 3.5

Mean Scores, Standard Deviations, and Numbers of Subjects for the NAT and ESL Subjects on the Sub-sections of the WI Test at the Advanced Level

Sub-section	Group					
	Native English-Speaking			ESL		
	mean	s.d.	n	mean	s.d.	n
Plurals	16.76	2.36	97	14.87	3.27	23
Compound Words	8.53	4.16	545	9.57	2.56	23
Consonants	15.14	4.57	97	11.52	5.04	23
Possessives	15.44	3.09	88	15.52	3.57	23
Vowels	16.34	3.91	88	11.78	3.85	23
Affixes	18.24	2.75	106	14.52	3.58	23
Cloze	16.58	6.00	106	15.35	6.53	23
Syllabication	16.69	3.28	106	13.09	5.16	23

Table 3.6

Results of *t* Tests among Native English-speaking (NAT) and ESL Subjects in the Sub-sections of the Advanced Level WI Test

Sub-section	Calculated *t* value
Plurals	3.19***
Compound Words	1.19
Consonants	3.35***
Possessives	-.11
Vowels	4.99***
Affixes	5.56***
Cloze	.88
Syllables	4.26***

*** $p < .01$

Thus, null hypotheses $H_{1,15}$; $H_{1,17}$; $H_{1,19}$; $H_{1,20}$; and $H_{1,22}$ were rejected, while null hypotheses $H_{1,16}$; $H_{1,18}$; and $H_{1,21}$ were not rejected.

Table 3.7 summarizes the results of testing null hypotheses $H_{1,1}$ through $H_{1,22}$. The table indicates that the native English-speaking students did significantly better than the ESL students on:

1. "plurals," "vowels," and "syllabication" at the beginning, intermediate, and advanced levels of the test;
2. "consonants" and "affixes" at the intermediate and advanced levels of the test.

Thus, the null hypotheses were rejected for these sub-sections and the alternative hypotheses, which predict that native English-speakers will outscore ESL students were confirmed.

The null hypotheses assuming no significant differences in the scores between native English-speaking and ESL students, were not rejected for: (1) "compound words" at the beginning, intermediate, and advanced levels; (2) "possessives" at the intermediate and advanced levels; (3) "maze" at the beginning level; and (4) "cloze" at the intermediate and advanced levels. Hence, the alternative hypothesis, which predicted that native English-speaking students would get higher scores on the sub-sections than ESL students, was not confirmed for "compound words" at all levels, "possessives" at the intermediate and advanced levels, "maze" at the beginning level, and "cloze" at the intermediate and advanced levels.

Table 3.7

Summary of Testing of Null Hypotheses $H_{1,1}$-$H_{1,22}$

$H_{1,1}$ (Plurals, Beg) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,2}$ (Compound Words, Beg) : $\mu_{NAT} = \mu_{ESL}$	Accepted
$H_{1,3}$ (Maze, Beg) : $\mu_{NAT} = \mu_{ESL}$	Accepted
$H_{1,4}$ (Consonants, Beg) : $\mu_{NAT} = \mu_{ESL}$	Accepted
$H_{1,5}$ (Vowels, Beg) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,6}$ (Syllabication, Beg) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,7}$ (Plurals, Int) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,8}$ (Compound Words, Int) : $\mu_{NAT} = \mu_{ESL}$	Accepted
$H_{1,9}$ (Consonants, Int) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,10}$ (Possessives, Int) : $\mu_{NAT} = \mu_{ESL}$	Accepted
$H_{1,11}$ (Vowels, Int) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,12}$ (Affixes, Int) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,13}$ (Cloze, Int) : $\mu_{NAT} = \mu_{ESL}$	Accepted
$H_{1,14}$ (Syllabication, Int) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,15}$ (Plurals, Adv) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,16}$ (Compound Words, Adv) : $\mu_{NAT} = \mu_{ESL}$	Accepted
$H_{1,17}$ (Consonants, Adv) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,18}$ (Possessives, Adv) : $\mu_{NAT} = \mu_{ESL}$	Accepted
$H_{1,19}$ (Vowels, Adv) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,20}$ (Affixes, Adv) : $\mu_{NAT} = \mu_{ESL}$	Rejected
$H_{1,21}$ (Cloze, Adv) : $\mu_{NAT} = \mu_{ESL}$	Accepted
$H_{1,22}$ (Syllabication, Adv) : $\mu_{NAT} = \mu_{ESL}$	Rejected

The alternative hypothesis was based on the assumption that native English-speaking students' superior command of the English language and wider exposure to reading-related activities in English would enable them to outscore ESL students on all the sub-sections of the word-identification test. As explained earlier, the alternative hypothesis was confirmed for three sub-sections across all the levels. This result strengthens the investigator's intuition that word-identification skills which are necessary for reading comprehension among ESL students may be different from those of native English-speakers. Thus, superior skills in sounding out English words or dividing them into syllables may not make better ESL readers. However, in interpreting the results one should examine carefully the nonstandardized measurement used in this study. For example, the small number of items (5) in "maze" and "plurals" at the beginning level may have affected the validity of the results. Also, the items in the test assess skills commonly taught in elementary classrooms to which many ESL students may not have been exposed.

Hypothesis Two: Advanced level ESL students do not outscore their intermediate counterparts on the sub-sections of the word-identification test.

$H_{2,1}$ (Plurals) : $\mu_{Int} = \mu_{Adv}$

$H_{2,2}$ (Compound Words) : $\mu_{Int} = \mu_{Adv}$

$H_{2,3}$ (Consonants) : $\mu_{Int} = \mu_{Adv}$

$H_{2,4}$ (Possessives) : $\mu_{Int} = \mu_{Adv}$

$H_{2,5}$ (Vowels) : $\mu_{Int} = \mu_{Adv}$

$H_{2,6}$ (Affixes) : $\mu_{Int} = \mu_{Adv}$

$H_{2,7}$ (Cloze) : $\mu_{Int} = \mu_{Adv}$

$H_{2,8}$ (Syllabication) : $\mu_{Int} = \mu_{Adv}$

Table 3.8 presents the mean scores, standard deviations, and numbers of ESL students at the intermediate and advanced levels by sub-sections. It is evident from the table that the advanced level ESL students outscored their counterparts at the intermediate level in all but one sub-section, namely "cloze." The differences in the means were tested for significance. Table 3.9 shows that the calculated t values were significant for "plurals," "compound words," "possessives," "vowels," "affixes," and "syllabication." No significant differences were discovered between the two reading levels for "consonants" and "cloze." Thus, hypotheses $H_{2,1}$; $H_{2,2}$; $H_{2,4}$; $H_{2,5}$; $H_{2,6}$; and $H_{2,8}$ were rejected, while hypotheses $H_{2,3}$ and $H_{2,7}$ were not rejected.

The alternative hypothesis, which predicted that advanced level ESL students will outscore their intermediate level counterparts on the sub-sections of the test, was confirmed for six out of eight sub-sections. The investigator assumed that ESL students who are

Table 3.8

Mean Scores, Standard Deviations, and Numbers of ESL Subjects for the Intermediate and Advanced Levels on the Sub-sections of the WI Test

Sub-section	Level					
	Intermediate			Advanced		
	mean	s.d.	n	mean	s.d.	n
Plurals	11.48	4.04	23	14.87	3.27	23
Compound Words	7.57	2.69	23	9.57	2.56	23
Consonants	10.78	4.69	23	11.52	5.04	23
Possessives	13.35	4.30	23	15.52	3.57	23
Vowels	10.13	3.61	23	11.78	3.85	23
Affixes	12.22	3.41	23	14.52	3.58	23
Cloze	16.00	5.35	23	15.35	6.53	23
Syllabication	10.87	4.94	23	13.09	5.16	23

Note: Sub-sections at the intermediate and advanced levels were identical except for "cloze" sub-section.

Table 3.9

Results of *t* Tests among Intermediate and Advanced Level ESL Subjects in the Sub-sections of the WI Test

Sub-section	Calculated *t* value
Plurals	3.13***
Compound Words	2.58***
Consonants	.52
Possessives	1.86**
Vowels	1.50*
Affixes	2.23**
Cloze	-.37
Syllabication	1.49*

*** $p < .01$

** $p < .05$

* $p < .10$

better comprehenders, as determined by the Metropolitan Reading Test, possess superior word-identification skills than ESL students who comprehend at a lower level. The results seem to confirm this assumption. Still, the following factors may partially explain why the advanced level ESL students outscored their intermediate level counterparts on some sub-sections. Items in "plurals," "possessives," and "affixes" sub-sections resemble ESL grammar exercises in middle and high schools. The 23 advanced level students were from fifth grade or above, while 5 of the 23 intermediate level students came from below fifth grade: 1 was a second grader, 2 were third graders, and 2 were fourth graders. These elementary children may not have been exposed to grammar drills, which are typical of ESL instruction in higher grades. Further, the explanation for the superiority of the advanced level students in "compound words" sub-section may be that better developed cognitive skills were needed to understand the complicated directions for this sub-section.

> Hypothesis Three: There is no relationship between ESL subjects' reading and listening comprehension scores. In other words, the correlation coefficients for these scores will not be significantly different from zero at the three levels of word-identification skills.

To test this hypothesis, correlation coefficients were calculated between listening comprehension and reading comprehension at the beginning, intermediate, and advanced levels. An examination

of Table 3.10 shows that a correlation coefficient of .10 was obtained between listening and reading comprehension at the beginning level. Since this coefficient was not significant, $p < .10$, the null hypothesis assuming no relation between listening and reading comprehension was not rejected. The coefficient of determination was obtained by squaring the correlation coefficient. This value is an index of the proportion of the variance of reading comprehension that was accounted for by its relation to listening comprehension (Hays, 1973, pp. 625-628). Thus, at the beginning level, approximately 1 percent of the variance of reading comprehension was associated with, or predictable from listening comprehension.

The correlation coefficient between listening and reading comprehension at the advanced level can be seen in Table 3.10. Since it (.23) was not significant ($p < .10$), the null hypothesis, that predicted no relation between the two variables was not rejected. The coefficient of determination was .10; hence, only 5 percent of the variance in one variable was explained by the other.

Table 3.10 shows a correlation coefficient of .61 between listening and reading comprehension at the intermediate level. An examination of the scattergram shown in Figure 1 revealed that a high correlation was partly caused by 5 observations with MAT scores higher than 75.

Table 3.10

Correlation Coefficients for ESL Subjects' Scores on Listening Comprehension and Reading Comprehension

Level	r	r^2
Beginning	.10	.01
Intermediate	.61***	.37
Advanced	.23	.05
Intermediate (without five extreme observations)	.18	.03
Advanced (with five extreme observations from the Intermediate Level)	.28*	.08
All Levels	.20**	.04

*** $p < .01$

** $p < .05$

* $p < .10$

To study these extreme observations' effect on the correlation coefficient, two additional procedures were followed. First, a new correlation coefficient between listening and reading comprehension was computed excluding the 5 extreme observations. Table 3.10 indicates that the resulting correlation coefficient (.18) was not significant, $p < .10$. Second, a correlation coefficient was calculated between listening and reading comprehension among the advanced level students including the 5 extreme observations from the intermediate level. The correlation coefficient (.28) was significant, $p < .10$. By squaring the correlation coefficient, a coefficient of determination of 7.7 was obtained. Thus, approximately 7.7 percent of the variance of reading comprehension was associated with, or predictable from listening comprehension when the 5 intermediate students with high MAT scores were included at the advanced level.

In this way, it was discovered that the correlation procedure was sensitive to the division of students between the levels. Therefore, a correlation coefficient was computed between listening comprehension and reading comprehension among all 91 subjects in the study. As seen in Table 3.10, the correlation coefficient (.20) was significant. The coefficient of determination was calculated to be .04.

In summary, although the correlation between listening and reading comprehension was significant when all 91 subjects were

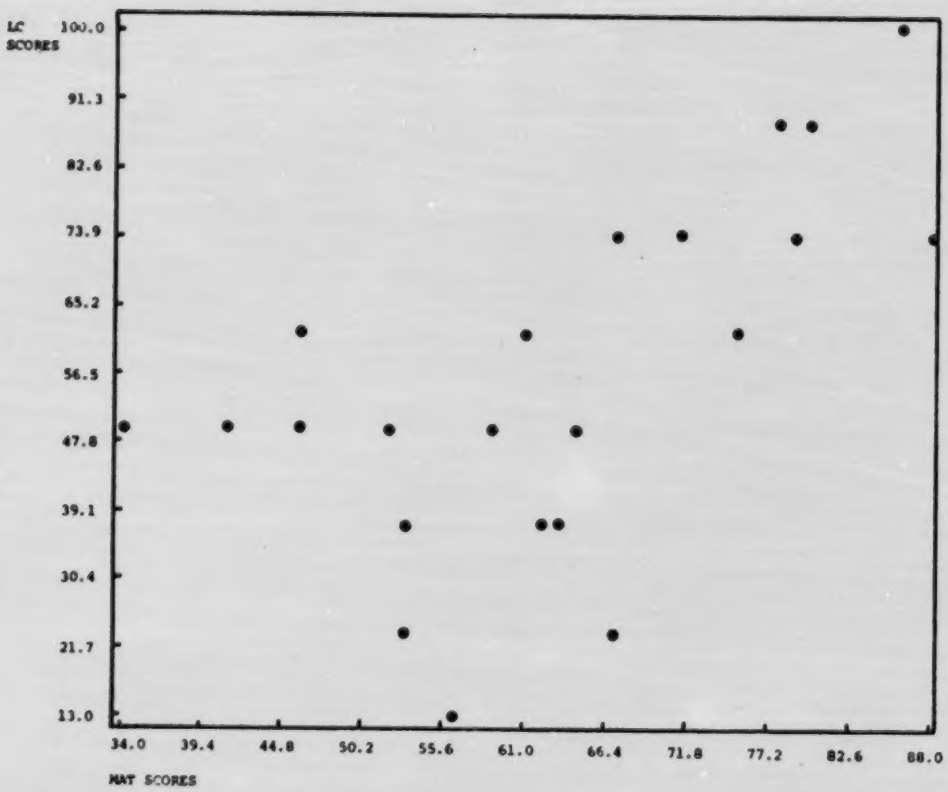

Figure 1. Scattergram for Listening and Reading Comprehension Scores at the Intermediate Level.

included in the analysis, the null hypothesis assuming no relation was not rejected at the beginning, intermediate, and advanced levels. Thus, the alternative hypothesis, which predicted that there is a significant positive relationship between listening and reading comprehension skills among ESL students was not confirmed at the three levels separately. Although the correlations were not significant, they were in the hypothesized direction, and were sensitive to the division of students by levels.

The results correspond with previous research concerning native English-speaking students. As discussed earlier, studies have shown that there is a positive relationship between listening and reading skills among English-speaking children (Berger & Perfetti, 1977; Carroll, 1977). The results of this study did not indicate a strong relationship between listening and reading comprehension among ESL students. This suggests that ESL students' reading skills and oral language comprehension require different abilities.

Differences among the correlations for the three reading levels were not great, as was expected according to the research with native English-speakers. Carroll (1977), for example, claimed that as children grow older, reading skills can go a little higher than language comprehension. Students at the advanced level in the study were not expected to have a highly significant relationship

between the two skills because many of the older ESL students had learned to read in English in their own countries before coming to the United States, even though their understanding of spoken English might have been minimal. Also, ESL instruction in higher grades concentrates on reading and writing skills. At the beginning level, on the other hand, the investigator expected a higher correlation between listening and reading comprehension. The measures of listening and reading comprehension at the beginning level consisted of readings which were closely related to the children's school environment.

Hypothesis Four: There are no differences in the scores of Spanish-speaking (SP) and Vietnamese-speaking (VIET) ESL students on the "plurals" sub-section of the WI test and on the test as a whole at the beginning (Beg), intermediate (Int), or advanced (Adv) levels, that is:

$H_{4,1}$ (Plurals, Beg) : $\mu_{SP} = \mu_{VIET}$

$H_{4,2}$ (Plurals, Int) : $\mu_{SP} = \mu_{VIET}$

$H_{4,3}$ (Plurals, Adv) : $\mu_{SP} = \mu_{VIET}$

$H_{4,4}$ (WI, Beg) : $\mu_{SP} = \mu_{VIET}$

$H_{4,5}$ (WI, Int) : $\mu_{SP} = \mu_{VIET}$

$H_{4,6}$ (WI, Adv) : $\mu_{SP} = \mu_{VIET}$

Table 3.11 presents the mean scores, standard deviations, and numbers of subjects for the Spanish- and Vietnamese-speaking subjects on the "plurals" sub-section and the entire WI test at the beginning, intermediate, and advanced levels. An examination of the table reveals that the sample sizes were fairly small and unequal. To justify the assumption of equal variances for a *t* test, *F* values were calculated to indicate the ratio of sample variances. The calculated *F* values for each hypothesis did not exceed the table *F* values, $p < .05$. Thus, the sample variances for each *t* test were homogeneous. Table 3.12 presents the calculated *F* values for the variance ratios and the calculated *t* values. As the table shows, the calculated *t* value exceeded the table *t* value ($p < .10$) in one test, namely testing $H_{4,1}$. Therefore, the null hypothesis of no difference was rejected. However, the alternative hypothesis, which predicted that Spanish speakers would outscore Vietnamese speakers, was not confirmed; the hypothesized direction was not achieved. The rest of the null hypotheses were not rejected; that is, there were no significant differences between the means in the five remaining comparisons. Also, it should be noted that only in two tests did the direction of the difference correspond with the predicted direction in the alternative hypotheses: intermediate level Spanish-speaking students received higher scores than Vietnamese-speaking students on the "plurals" sub-section and on the entire WI test. For the other null hypotheses, the calculated *t* values were negative; Vietnamese speakers outscored

Table 3.11

Mean Scores, Standard Deviations, and Numbers of Subjects for the Spanish-speakers and Vietnamese-speakers on the "Plurals" Sub-section and the Entire WI Test at the Beginning, Intermediate, and Advanced Levels

Test	Group					
	Spanish			Vietnamese		
	mean	s.d.	n	mean	s.d.	n
Plurals						
Beginning	3.29	1.23	24	4.60	.55	5
Intermediate	9.83	3.56	6	8.33	1.16	3
Advanced	12.67	2.52	3	15.43	3.70	7
WI						
Beginning	45.46	11.42	24	49.80	11.52	5
Intermediate	98.50	16.23	6	88.33	14.19	3
Advanced	88.00	33.42	3	112.57	16.41	7

Table 3.12

Calculated F Values and Results of t Tests among Spanish-speaking and Vietnamese-speaking Subjects in the "Plurals" Sub-section and Entire WI Test

	Calculated F value	Calculated t value
Plurals		
Beginning	5.07	-2.30
Intermediate	9.42	.69
Advanced	2.15	-1.17
WI		
Beginning	1.02	- .77
Intermediate	1.31	.92
Advanced	4.15	-1.62

Spanish speakers, which was opposite to the expected outcome. The results were probably affected by some individual, instructional, and socioeconomic factors which were not controlled in the study. Among these were students' length of residence in the U.S., amount of English spoken at home, amount of ESL instruction, and parents' socioeconomic background.

Because the results of the tests of Hypothesis Four were unexpected and somewhat questionable due to the small and unequal sample sizes, ESL students were divided into two main linguistic categories according to their first language to explore further whether ESL students' reading performance is influenced by their first language. The students belonged to either the Indoeuropean language group or the Non-Indoeuropean language group. In classifying the students into the two groups, the investigator followed the guidelines presented in Gleason (1961, pp. 457-479). Table 3.13 shows the numbers of students by languages in each group. English is an Indoeuropean language and shares structural characteristics with the other languages in the group. Therefore, it was predicted that on the "plurals" sub-section and on the entire WI test, students with the Indoeuropean (IND) language background would outscore their Non-Indoeuropean (NON) counterparts at the beginning, intermediate, and advanced levels. Means, standard deviations, and numbers of students for the two linguistic groups on the structure sub-section and on the WI test as a whole are shown in Table 3.14.

Table 3.13

Numbers of ESL Students in Indoeuropean and Non-Indoeuropean Language Groups by First Languages

Language Group			
Indoeuropean		Non-Indoeuropean	
Language	n	Language	n
Afrikaans	3	Amharic	3
Bengali	1	Arabic	4
Norwegian	2	Chinese	1
Persian (Farsi)	6	Edo	1
Portuguese	2	Ibo	2
Spanish	33	Hungarian	1
		Indonesian	1
		Japanese	6
		Korean	1
		Lingala	1
		Laotian	1
		Malay	1
		Hmong	2
		Vietnamese	15
		Yoruba	14
TOTAL	47	TOTAL	44

An examination of the means for the two groups in Table 3.14 reveals that the students with the Non-Indoeuropean language background out-scored the Indoeuropean students on all tests but one, namely the entire WI test at the beginning level. Thus, the prediction that the Indoeuropean students would perform better than the Non-Indoeuropean students, was not confirmed.

The t test results are presented in Table 3.15. It is evident that there were no significant differences between the means. The results of this study correspond with previous research concerning the relationship between second language acquisition and first language background. Earlier in this study, research was reviewed which showed the importance of developmental errors in second language acquisition (Dulay & Burt, 1972; Dulay & Burt, 1974; Ervin-Tripp, 1974; Fathman, 1975). The results of these research studies suggested that language background did not seem to change the order in which certain linguistic structures were learned. This study showed that ESL students' recognition of regular and irregular plurals in written form, as measured by the WI test, and their performance on the entire WI test were not affected by their language background.

Hypothesis Five: There is no relationship between ESL subjects' reading skills in their first language and in English. In other words, the correlation coefficient associated with the MAT scores in English and cloze scores in the first language will be zero.

Table 3.14

Means, Standard Deviations, and Numbers of Subjects for the Indoeuropean and Non-Indoeuropean Students on the "Plurals" Sub-section and the WI Test

Test	Group					
	Indoeuropean			Non-Indoeuropean		
	mean	s.d.	n	mean	s.d.	n
Plurals						
Beginning	3.42	1.34	31	4.07	1.00	14
Intermediate	10.20	2.97	10	12.46	4.58	13
Advanced	14.17	2.32	6	15.12	3.57	17
WI						
Beginning	46.45	10.99	31	44.29	9.92	14
Intermediate	89.70	18.48	10	94.46	19.03	13
Advanced	102.67	28.42	6	107.47	22.18	17

Table 3.15

Results of *t* Tests among Indoeuropean (IND) and Non-Indoeuropean (NON) in the "Plurals" Sub-section and Entire WI Test at the Beginning, Intermediate, and Advanced Levels

Test	Calculated *t* value
Plurals	
Beginning	-1.63
Intermediate	-1.35
Advanced	-.60
WI	
Beginning	.63
Intermediate	-.60
Advanced	-.42

There were 14 students who were able to read the translated cloze passage in their first language. Of these, 8 were Spanish-speaking and 6 were Vietnamese-speaking. At the beginning level, there was 1 Spanish-speaking student; at the intermediate level, there were 4 Spanish-speaking students; and at the advanced level-there were 3 Spanish-speaking and 6 Vietnamese-speaking students. Table 3.16 shows the students' scores, grade and reading levels, and linguistic backgrounds. A correlation coefficient was calculated between the students' performance on the measures of reading comprehension in their first language and in English. The correlation coefficient of -.28 was obtained between the two variables. Since this coefficient was not significant, $p < .10$, the null hypothesis assuming no relationship between reading comprehension in the first language and in English was not rejected. The alternative hypothesis which predicted a positive correlation between the two variables was not confirmed.

The results of testing Hypothesis Five suggest that reading skills in the first language are not transferable into English. This study, however, is limited in that the number of students who took the cloze test in their first language was small and the students' individual instructional, or socioeconomic background variables were not controlled.

The following speculations attempt to explain the result of no relationship between reading skills in the first language and English.

Table 3.16

Beginning, Intermediate, and Advanced Level ESL Subjects' Scores on the Translated Cloze Test

Subject			Level			First Language	
	Grade	Score	Beginning	Intermediate	Advanced	Spanish	Vietnamese
Student 1	10	19[b]	X	X		X	
Student 2	9	24[a]		X		X	
Student 3	12	23[a]		X		X	
Student 4	6	22[a]		X		X	
Student 5	12	25[a]		X		X	
Student 6	7	17[b]			X	X	
Student 7	12	17[b]			X	X	
Student 8	11	17[b]			X	X	
Student 9	7	16[c]			X		X
Student 10	10	15[c]			X		X
Student 11	6	11[c]			X		X
Student 12	11	16[c]			X		X
Student 13	11	10[c]			X		X
Student 14	11	15[c]			X		X

[a] maximum score was 27

[b] maximum score was 20

[c] maximum score was 19

The questionnaire information showed that the Vietnamese students in the sample had been in this country a minimum of two years and had not received any instruction in their first language since coming here. Thus, they had lacked practice in reading Vietnamese. Most of their parents had little education and in many cases had wanted to adopt the American culture. This lack of incentive to maintain Vietnamese may be one reason for their poor performance on the cloze test translated into Vietnamese. Still, the Vietnamese students' low scores in the translated cloze test are surprising considering the low reading levels of the passages and the relatively high grade placements of the students.

The Spanish-speaking students performed relatively better on the cloze passage in their first language than on the English MAT test. Reasons for this are that these students had been in this country for less than six months, were children of educated parents, and planned to stay in this country for only a couple of years. In most of their homes, the first language was spoken, which gave the children an additional incentive to practice their native tongue. In this context, it should be noted that none of the Spanish-speaking students in the sample whose parents were either immigrants or residents in this country were able to read in their first language and take the cloze test translated into Spanish.

Ancillary Questions

The following ancillary questions were investigated in the study: (1) What is the relationship between word-identification skills and reading comprehension among ESL students? and (2) What is the effect of certain individual, instructional, and socio-economic variables on ESL students' reading comprehension? The questions will be discussed in the above order.

To begin, the first question will be addressed and evidence will be presented relative to the concurrent validity of the word-identification test with the reading comprehension measure. Stanley and Hopkins (1972) define concurrent validity as the extent that a test "correlates with the established test or some other concurrently obtained criterion" and that "concurrent validity is often the initial step for establishing predictive validity" (p. 109). Concurrent validity as used in this study is close to predictive validity. In predictive validity the test has the task of predicting some subsequent measure of performance. The accuracy of the predictions is usually represented by the correlation coefficient between test scores and the criterion. This coefficient is a validity coefficient, since it defines the degree of criterion-related validity of the test (Stanley & Hopkins, 1972, p. 105). In this study, the criterion was a standard score on the reading comprehension section of the Metropolitan Achievement Test (MAT). Table 3.17 presents the correlation coefficients of the WI sub-sections and the criterion,

Table 3.17

Correlation Coefficients between the ESL Subjects' Test Scores on the WI Sub-sections and the MAT Standard Scores

Sub-section	Level				
	Beginning	Intermediate		Advanced	
	r	r	r^2	r	r^2
Plurals	.15	.10		.36**	.13
Compound Words	-.01	.14		-.09	
Maze	-.22	--		--	
Consonants	.06	.41**	.17	-.08	
Vowels	.01	.54***	.29	.01	
Syllables	.08	.07		-.03	
Possessives	--	.09		.32*	.10
Affixes	--	.37**	.14	.32*	.10
Cloze	--	.31		.05	
Total WI Test	.04	.45**	.20	.13	

*** $p < .01$
** $p < .05$
* $p < .10$

the MAT scores. An examination of Table 3.17 indicates that none of the predictive validity coefficients was significant at the beginning level. At the intermediate level, "consonants," "vowels," "affixes," and the entire test had significant coefficients with the MAT scores. At the advanced level, "plurals," "possessives," and "affixes" yielded significant predictive validity coefficients with the criterion. The coefficients of determination (r^2) were obtained by squaring the predictive validity coefficients. These values were indices of the proportion of the variance in the reading comprehension scores which could be predicted by the variance in the sub-section scores.

The following reference to previous research will attempt to explain the association of "plurals," "possessives," "affixes," and the MAT scores at the advanced level. In the review of literature for this study, research dealing with the most effective ways to teach reading in a second language was discussed. Several studies indicated that in teaching ESL reading to adults or high school students, there was an emphasis on attending to structural meaning rather than on vocabulary (Allen, 1973; Been, 1975; Berman, 1975; Cowan, 1974; Eskey, 1973; Horn, 1969; Norris, 1970; Pierce, 1975; Plaister, 1968; Saville-Troike, 1973; Wilson, 1973). The investigator's own experience and observations in ESL high school classes confirm this view. Reading instruction focuses on structural analysis of words and sentences; ESL teachers spend a considerable

amount of time on teaching prefixes, suffixes, possessives, and plurals in a context of a text. Therefore, the associations between the three sub-sections and the MAT may be explained by this emphasis on ESL instruction.

At the intermediate level, on the other hand, "affixes," "consonants," and "vowels" gave significant predictive validity coefficients with the MAT scores. Again, the fairly high percentage (21) of elementary school children among the 23 intermediate level students may explain the associations between these two phonics sub-sections and the MAT scores. Instruction of letter-sound correspondences is an important part of reading and ESL classes in elementary schools.

There was no association between the WI sub-sections and the MAT scores at the beginning level. The ability to distinguish plurals, recognize compound words, complete sentences, know phonics generalizations, and divide words into syllables, as measured by the WI test, was not found to be correlated with the MAT reading comprehension scores.

Previous research shows that standardized reading tests developed for English speakers have lower reliability and predictive value when used with non-native speakers of English than when used with native English-speakers. As mentioned earlier in this study, Mishra and Hurt (1970) investigated the predictive value of the Metropolitan Readiness Tests when used with Spanish-speaking children.

The results showed that correlations with the word knowledge and reading sub-tests of the Metropolitan Achievement Tests were lower than reported in the manuals. Now, the word-identification tests used in this study were not developed to be predictive of students' achievement in reading comprehension measures, although they consisted of items commonly taught in reading classes. Additionally, the tests were constructed to be used with native English-speaking children, which affects their reliability and predictive validity when used with ESL students. Therefore, test reliability and item difficulty in the beginning level test were studied.

The LERTAP item-analysis was performed. To assess test reliability, LERTAP uses the internal consistency method to produce the Hoyt reliability index, which is algebraically equivalent to the Kuder-Richardson formula (Nelson, 1974, p. 260). The Hoyt reliability coefficient is an estimate of the extent to which each test item measures whatever the test is measuring. Thus, the test reliability coefficient reflects the accuracy of the measuring process: the higher the value of the coefficient, the greater the accuracy of the process. If the test is designed for group surveys and class assessment, the reliability coefficient should be .70 or greater. However, if the assessment of the individual performance is needed, the coefficient should be .85 or higher (Nelson, 1974, p. 261). Ebel (1965, p. 330) stated that "most test constructors are reasonably well satisfied if their

tests yield reliability coefficients in the vicinity of .90." Table 3.18 presents the Hoyt reliability coefficients for the WI sub-sections at the beginning, intermediate, and advanced levels. A review of Table 3.18 clearly reveals that the coefficients at the beginning level were lower than at the intermediate and advanced levels. In the beginning level test only one sub-section, namely "compound words," had a reliability coefficient greater than .85, while several sub-sections at the higher reading levels yielded coefficients higher than .85.

The difficulty levels of the items were also obtained through the LERTAP item-analysis. At the beginning level, the difficulty level of the items in two sub-sections, namely "plurals" and "compound words" was not adequate; the items were too easy for the ESL students. Stanley and Hopkins (1972) wrote: "Optimal difficulty for true-false items is about 75 percent, for five-option multiple-choice questions about 60 percent, . . . Most of the items in the final test should be in the 50-80 percent difficulty range" (pp. 188-189). The difficulty indices (percentages of the test takers who got the item correct) for "plurals" and "compound words" are presented in Table 3.19.

Both of these sub-sections consisted of true-false items; expected optimal difficulty was 75 percent. Table 3.19 indicates that only two items out of the 20 items were close to the optimal difficulty, namely item 9 with difficulty of 73.3 and item 14 with

Table 3.18

Hoyt Reliability Coefficients for the WI Sub-sections

Sub-section	Level		
	Beginning	Intermediate	Advanced
Plurals	.47	.78	.72
Compound Words	.87	.52	.55
Maze	.49	--	--
Consonants	.68	.84	.87
Vowels	.66	.67	.72
Syllables	.79	.85	.89
Possessives	--	.81	.79
Affixes	--	.66	.76
Cloze	--	.85	.92

Table 3.19

Difficulty Indices for Items in the Plurals and Compound Words Sub-sections at the Beginning Level

Item	Difficulty Index
Plurals	
Item 1	97.8
Item 2	100.0
Item 3	95.6
Item 4	86.7
Item 5	88.9
Compound Words	
Item 1	97.8
Item 2	100.0
Item 3	95.6
Item 4	86.7
Item 5	88.9
Item 6	100.0
Item 7	82.2
Item 8	84.4
Item 9	73.3
Item 10	95.6
Item 11	97.8
Item 12	82.2
Item 13	88.9
Item 14	77.8
Item 15	80.0

difficulty of 77.8, both in the compound words sub-section. All other items showed a higher difficulty index. Thus, they were too easy to discriminate adequately among subjects. In summary, two indices of test quality, test reliability and item difficulty, were low in the beginning level test and may have invalidated the results at this point in the study.

The second ancillary question was: "What is the effect of certain individual, instructional, and socioeconomic variables on ESL students' reading comprehension?" Information about 10 questions on the parent-student-teacher questionnaire is shown in the tabular form and explained in the text in the remainder of this chapter. The following questions were studied:

Is ESL students' reading performance affected by the following individual factors?

1. Sex differences
2. Language background
3. Length of residence in the United States
4. Amount of English spoken at home
5. Sibling position
6. Hours of television watching
7. Number of library visits
8. Amount of ESL instruction in the United States

Is ESL students' reading performance affected by the following socioeconomic factors?

1. Father's and mother's occupations

2. Father's and mother's years of education

Sex differences. Table 3.20 presents average MAT scores for boys and girls in the study. There were 46 male and 45 female students in the study. The average MAT score was 63.05 for the males and 64.42 for the females. Thus, there was no significant difference in the total reading comprehension scores of the subjects due to sex. Neither was there any noticeable pattern between the sexes by grade. It was mentioned earlier in this study that in the United States, studies have shown that girls out-score boys in elementary schools (Johnson, 1972; McCarthy, 1953; Nila, 1953). This was not established for the ESL subjects of this study.

Language background. Table 3.21 presents numbers of students categorized according to language background. From Table 3.21, it can be seen that 24 (79 percent) of the Spanish-speaking subjects were at the beginning WI level even though their actual grades ranged from second to twelfth. The distribution of Vietnamese and other students in the study was more even across the word-identification levels.

Length of residence in the United States. The mean number of months in the United States for all the 91 subjects was 31.02; the range was from 1 month to 199 months. The means for the beginning, intermediate, and advanced WI levels were 44.29, 16.91, and 16.48, respectively. Table 3.22 presents numbers of students at each level according to months of residence in the United States.

Table 3.20

Mean MAT Scores for Students by Sex and Grade

Grade	Sex				
	Male		Female		
	mean	n	mean	n	N
2	49.00	8	60.50	4	12
3	68.60	5	48.50	2	7
4	55.80	5	68.38	8	13
5	55.00	7	51.40	5	12
6	58.67	3	53.00	1	4
7	83.00	2	81.67	3	5
8	52.25	4	64.33	3	7
9	61.80	5	55.80	5	10
10	50.00	1	73.00	7	8
11	83.00	1	72.33	3	4
12	76.40	5	57.75	4	9
Total	63.05	46	62.42	45	91

Table 3.21

Numbers of Students at the Beginning, Intermediate, and Advanced WI Levels by First Language Background

Native Language	WI Level		
	Beginning	Intermediate	Advanced
Spanish	24	6	3
Vietnamese	5	3	7
Others	16	14	13
Total	45	23	23

Table 3.22

Number of Students at the Beginning, Intermediate, and Advanced WI Levels by Length of Residence in the United States

Length of Residence	Level		
Months	Beginning	Intermediate	Advanced
0-6	18	9	7
7-12	4	6	6
13-18	2	2	2
19-24	1	2	1
25-30	6	2	3
31-36	--	1	3
37-48	2	--	1
90-199	12	1	--
Total	45	23	23

It is obvious from examining the table that at the time of testing, most subjects had stayed in this country less than 4 years. Twelve students at the beginning level and one student at the intermediate level were exceptions; they were Spanish-speaking students, born in this country.

Amount of English spoken at home. The responses on the parent-student-teacher questionnaire indicated that the mean percentage of English spoken at home for the subjects at the beginning WI level was 10.80. At the intermediate and advanced levels, the percentages were 10.45 and 22.83, respectively. Thus, the mean percentage at the advanced level was twice as large as it was at the beginning and intermediate levels. This finding is consistent with the psycho-linguistic theory of reading: there is a positive relationship between speaking and reading skills in English. In practical terms, the implication may give ESL teachers assurance when they recommend practice of English at home.

Sibling position. As can be seen in Table 3.23, there was no clear pattern between sibling position and reading performance except at the advanced WI level. Table 3.23 shows that at the advanced level, a declining linear trend emerged in the mean MAT scores for the first, middle, and last children. Then, the MAT scores increased for the small number of only children. The result of no noticeable pattern between sibling position and reading performance at the other WI levels and across the levels is consistent with the previous research with native speakers of English by Hansen (1969).

Table 3.23

Mean MAT Scores at the Beginning, Intermediate, and Advanced Levels by Sibling Position

WI Level	Sibling Position							
	First		Middle		Last		Only	
	mean	n	mean	n	mean	n	mean	n
Beginning	49.92	12[a]	55.21	24	55.00	6	68.00	2
Intermediate	66.73	11[a]	56.25	8	65.67	3	--	--
Advanced	79.75	8[a]	75.22	9	64.75	4	71.00	2

[a]There were 44 observations at the beginning level, 22 at the intermediate level, and 23 at the advanced level.

Hours of television watching. The mean number of hours students reported watching television per day was 3.07. Average MAT scores for all the subjects are shown in Table 3.24 divided according to hours of television watching per day. Table 3,24 indicates that there is an inverse relationship between hours of television watching and ESL students' reading comprehension skills, except for a small number of students who watched television for more than six hours per day.

Public library visits. Library visits were considered an indicator of the students' reading exposure. Research with native English-speaking children has shown that the number of books children read is directly related to the speed of their language and reading development (Chomsky, 1972). In this study, there was no clear pattern between the ESL subjects' reading performance, as measured by the MAT scores, and the number of public library visits per month. Generally, as can be seen in Table 3.25, the beginning ESL students rarely visited a public library. More than half of the ESL students at each level reported their public library vists to be none. However, over 25 percent of the itermediate and advanced level students visited a public library at least twice a month.

Amount of ESL instruction in the United States. There was no discernible linear trend between hours of ESL instruction and MAT scores at the beginning, intermediate, or advanced levels. That is, ESL students' MAT scores did not get higher as hours of ESL instruction increased. In Table 3.26 one sees, however, that at each WI level, the

Table 3.24

Average MAT Scores for Students by Hours of Television Watching

Hours of Television Watching							
0-1		2-3		4-5		6 or more	
mean	n	mean	n	mean	n	mean	n
70.9	14	62.21	44	55.53	27	62.5	6

Table 3.25

Number of Public Library Visits of ESL Students by WI Levels

Number of Library Visits Per Month	Level		
	Beginning	Intermediate	Advanced
0	40	12	15
1	2	1	2
2-5	2	6	5
5-9	1	4	1
Total	45	23	23

Table 3.26

Average MAT Scores for Students at the WI Levels by Hours of ESL Instruction per Week

Level	Hours of ESL Instruction							
	0-2		3-5		6-10		11-15	
	mean	n	mean	n	mean	n	mean	n
Beginning	58.59	15	49.80	11	56.54	8	58.91	11
Intermediate	64.58	9	61.61	12	67.00	1	61.00	1
Advanced	72.00	6	68.67	15	81.00	1	73.00	1

average MAT score for the students who received the smallest amount of ESL instruction (0-2 hours) was higher than for the students whose ESL instruction ranged from 3 to 5 hours.

Additionally, Table 3.26 indicates that the MAT scores accelerated at each level as ESL instruction increased to the next level (6-10 hours). At the beginning level, the increase continued as ESL instruction rose to the level of 11 hours and above. For the intermediate and advanced levels, conclusions cannot be drawn about the relationship between reading comprehension and amount of ESL instruction at the ESL instructional level of 6 hours or more due to the small sample size (one observation) at those instructional levels.

The noticeable decrease in the scores at the level of 3 to 5 hours of ESL instruction might be interpreted to mean that the increase in ESL instruction has an inverse effect on the students' reading scores. This conclusion would confirm previous empirical research which has found that ESL instruction does not improve ESL children's language skills (Fathman, 1976; Hale & Budar, 1970). However, the causality may run in the opposite direction. It is the general policy for ESL teachers to give more instruction to students who are more deficient in English.

Father's and mother's occupations; father's and mother's years of education. There was no clear pattern between the subjects' reading performance as measured by the MAT scores and the parents'

occupational codes or years of education. Based on previous research (Holick, 1975; Ziros, 1976), it was expected that a direct relationship exists between ESL students' socioeconomic status and reading skills. In the study, the fathers' occupational codes ranged from 2 (an architect) to 912 (a cook) while the codes for the mothers ranged from 23 (an engineer) to 982 (a housekeeper). The parents' years of education ranged from 1 year to 22 years. The investigator predicted that as the occupational codes increased, the students' MAT scores would decline. It was also expected that as the parents' educational level increased, the MAT scores would get higher, too. No such patterns were observed when the data for all the subjects were examined. Then, the data were broken down by the three WI levels. Yet, the cross tabulation failed to show a relationship between the fathers' or mothers' occupational codes or educational levels and the reading comprehension scores. In fact, at the intermediate level, there was an inverse relationship between the parents' occupations and the students' reading performance.

In summary, cross tabulation of the data did not indicate a discernible pattern between ESL students' socioeconomic status, as measured by parents' occupational or educational levels, and ESL students' reading performance, as measured by MAT scores. There may be intervening variables which were not disentangled by this examination. An analysis which allows for simultaneous determination

of several variables, such as multiple regression analysis, ought to be considered for further study on this matter.

In the following chapter, these results are reviewed, in conjunction with a summary of the problem, measurements, sample, testing procedures, and analysis of the data. In addition, the chapter includes the conclusions, limitations, and implications for further research as well as for classroom practice.

CHAPTER IV

SUMMARY, LIMITATIONS, CONCLUSIONS, AND IMPLICATIONS FOR CLASSROOM PRACTICE, IMPLICATIONS FOR FUTURE RESEARCH, AND A FINAL WORD

Summary

Restatement of the Problem

This investigation was designed (1) to examine the relationships among word-identification, reading comprehension, and listening comprehension of ESL children, and (2) to compare word-identification and reading comprehension skills of ESL and native English-speaking children. An additional purpose of the study was to determine the effects of certain individual, instructional, and socioeconomic variables on ESL students' reading comprehension.

Five specific research questions were posed:

1. Are there differences in the word-identification skills of native and ESL children?
2. Do word-identification skills have a positive relationship with ESL readers' comprehension skills? That is, do ESL speakers at a higher reading comprehension level possess superior word-identification skills to those reading at a lower reading comprehension level?
3. Are ESL students who understand spoken English well better

readers than those who understand spoken English less well?

4. Do children with a first language that is structurally close to English perform better on the word-identification tasks than children with a first language that is structurally less close to English?
5. Are children who read well in their first language also good readers in English?

The following ancillary questions were also investigated:

1. What is the relationship between word-identification skills and reading comprehension among ESL students?
2. What is the effect of certain individual, instructional, and socioeconomic variables on ESL students reading comprehension?

Tests and Measurements

To measure the subjects' reading comprehension skills, the reading sub-tests from the following Metropolitan Achievement Tests (MAT) were used: Primary I and Primary II for the second-grade, Elementary for the fourth-grade, and Intermediate for the sixth-grade reading levels.

A non-standardized word-identification test, designed by the Word Identification and Reading Research Group at the Wisconsin Research and Development Center of the University of Wisconsin, measured word-identification skills. Students whose MAT grade equivalent scores ranged from 1.5 to 3.5 took the beginning level

form (second-grade level). The range of MAT for students who took the intermediate level form (fourth-grade) was 3.5 to 5.5, and 5.5 or above for those who took the advanced level form (sixth-grade).

Listening comprehension was assessed by means of three reading passages, a 2.8 grade level, a 4.5 grade level, and a 6.5 grade level story, from the auditory comprehension sub-test of the Diagnostic Reading Scales.

To help answer questions about the effects of certain individual and socioeconomic factors on reading comprehension of ESL learners, a parent-student-teacher questionnaire was used. It includes questions which previous researchers had found to be successful predictors of either reading performance among native English-speaking children or general language proficiency of ESL learners.

Finally, two translated cloze passages in Spanish and Vietnamese were used to assess the reading skills of Spanish- and Vietnamese-speaking ESL students.

The Sample and Testing Procedures

A pilot study was conducted to refine the testing procedures. The pilot sample consisted of two fifth-grade and one second-grade ESL students in a Madison, Wisconsin, elementary school. Each student's word-identification, reading comprehension, and listening comprehension skills were assessed using a form of the MAT, WI, and LC tests. Additionally, the students' parents were contacted to provide the requested information on the questionnaire.

The pilot study indicated that no significant changes in the testing instruments were needed but that the testing time for the WI test needed to be increased.

A total of 236 second-grade, 254 fourth-grade, and 291 sixth-grade children from 9 schools in Wisconsin constituted the native English-speaking sample of the study. Altogether, 91 ESL students from the Madison, Wisconsin, Public Schools, who completed the MAT, WI, and LC tests, and the questionnaire constituted the ESL subjects for the investigation. The ESL subjects were from 14 schools and their grade levels ranged from the second to the twelfth. In sum, 14 of the 91 ESL students, 8 Spanish-speaking and 6 Vietnamese-speaking students completed the translated cloze test in their first language, which permitted the pursuit of 1 of the 5 questions in the investigation.

Analysis of the Data

Five null hypotheses, implied by the research questions, were tested. Two statistical techniques were used to test the hypotheses, namely the *t* test and the Pearson product moment correlation. *T* tests were performed to test Hypotheses One, Two, and Four (see pp. 91-107 and 113-120), while Pearson produce correlation coefficients were calculated to test Hypotheses Three and Five (see pp. 107-113 and 120-125). Since the study was a survey study and heuristic in nature, probability levels of .01, .05, and .10 were reported throughout the study. The investigator set the .10

level as the minimum probability level for judgments of statistical significance.

The first hypothesis was related to the comparison of ESL subjects' word-identification skills with those of native English-speaking children who read at the second-, fourth-, and sixth-grade levels. The mean scores of ESL subjects on the sub-sections at the beginning, intermediate, and advanced levels were compared to those of the sample native English-speakers. The null hypotheses, formulated for the WI sub-sections at each reading level, were rejected when the calculated t values surpassed the .10 level of significance.

The second hypothesis, relative to ESL children's word-identification skills at two different reading levels was also tested using the t test. The subjects' mean scores on the sub-sections between the intermediate and advanced levels of the word-identification test were tested for statistically significant differences.

Hypothesis Four was related to the influence of first language background and ESL children's knowledge of English structure. The "plurals" sub-section and the entire WI test assessed knowledge of English structure among the Spanish- and Vietnamese-speaking subjects at all three reading levels. To determine whether significant differences existed between the mean scores of the Spanish- and Vietnamese-speaking subjects, t tests were used. Similar statistical

procedures were used to determine if differences in the mean scores existed between students with the Indoeuropean and Non-Indoeuropean language backgrounds.

Hypothesis Three dealt with the relation between ESL children's reading and listening comprehension skills. It assumed no relation between listening and reading comprehension skills and was tested through the statistical technique of the Pearson product moment correlation. In other words, coefficients between reading comprehension and listening comprehension scores at the beginning, intermediate, and advanced levels were calculated and tested against zero.

The fifth hypothesis, relative to the relation between reading skills in the first and second language, was tested in a similar fashion, using the Pearson product moment correlation. In this instance, correlation coefficients were computed between the translated cloze scores and the MAT scores.

The data related to the first ancillary question dealing with the relationship between ESL students' performance on the WI subsections and the MAT were explained by means of an inter-correlation matrix on the sub-sections of the WI test and the MAT test.

The second ancillary question was: "What is the effect of certain individual, instructional, and socioeconomic variables on ESL students' reading comprehension?" Responses to 10 questions on the parent-student-teacher questionnaire were analyzed and described.

Where patterns were apparent, they were discussed regarding these independent variables and their relation to ESL children's reading comprehension.

Results

In this section, the results of testing each hypothesis are summarized.

Hypothesis One: The results of t tests showed that at the beginning WI level, the native (NAT) students performed significantly better than the English as a Second Language (ESL) students on 3 of the 7 sub-sections; namely, "plurals," "vowels," and "syllabication" (see Table 3.2). At the intermediate level, there were significant differences, as predicted by the alternative hypothesis, between the 2 groups of 5 out of the 8 sub-tests; namely, "plurals," "consonants," "vowels," "affixes," and "syllabication" (see Table 3.4). Significant differences at the advanced level existed on the "plurals," "consonants," "vowels," "affixes," and "syllabication" sub-tests (see Table 3.6).

Thus, 13 of the 22 sub-tests at the beginning, intermediate, and advanced levels confirmed the alternative hypothesis, which predicted that the NAT students would outscore the ESL students. On 3 sub-tests, "plurals," "vowels," and "syllabication," the NAT students performed significantly better than the ESL students across all 3 reading levels. Yet no significant differences were found in the mean scores between the two groups on the "compound words" at

all levels, "possessives" at the intermediate and advanced levels, "maze" at the beginning level, and "cloze" at the intermediate and advanced levels.

Hypothesis Two: The findings indicated that the advanced level ESL students received significantly higher scores than their intermediate level counterparts in 6 of the 8 sub-sections (see Table 3.9). These sub-sections were "plurals," "compound words," "possessives," "vowels," "affixes," and "syllabication." No significant differences were found in "consonants" and "cloze." However, the lack of difference in the "cloze" sub-section may be attributed to the fact that the cloze passages at the intermediate and advanced levels were not the same.

Hypothesis Three: Listening comprehension was not related to reading comprehension ($p < .10$) at the beginning and advanced reading levels (see Table 3.10). On the other hand, the correlation coefficient (.61) at the intermediate level was signficant. However, it was discovered that the high correlation at the intermediate level was partly caused by 5 extreme observations. Exclusion of the 5 extreme observations from the computation gave a nonsignificant correlation coefficient. Thus it was found that the correlation procedure was sensitive to the division of students between the levels. Nevertheless, a correlation coefficient was computed between reading and listening comprehension among all 91 subjects in the study. This correlation coefficient (.20) was significant.

Hypothesis Four: The results of t tests indicated that there were no significant differences in the mean scores of the Spanish- and Vietnamese-speaking subjects on the "plurals" sub-section and the entire WI test at the beginning, intermediate, and advanced levels (see Table 3.12). Similarly, no statistically significant differences were found in the mean scores of the Indoeuropean and Non-Indoeuropean students on these same tasks (see Table 3.15).

Hypothesis Five: The computed correlation coefficients for the reading scores of the Spanish- and Vietnamese-speaking students in English and in the first language were not significant (see page 120). Therefore, the null hypothesis assuming no relationship between reading comprehension in English and in the first language was not rejected, and the alternative hypothesis, which predicted a positive correlation between the two variables, was not confirmed.

The first ancillary question was: "What is the relationship between word-identification skills and reading comprehension among ESL students?" Validity coefficients, which define the degree of criterion-related validity of the test, were computed between the WI sub-sections and the MAT scores (see Table 3.17).

At the intermediate level, "consonants," "vowels," and "affixes" had significant predictive validity coefficients with the MAT test. "Plurals," "possessives," and "affixes" yielded significant predictive validity coefficients with the criterion at the advanced level. At the beginning level, none of the predictive validity coefficients

was significant. Subsequently, it was found that two indices of test quality, test reliability and item difficulty, were low in the beginning level test and may have invalidated the results.

The second ancillary question, which dealth with the relationship between selected demographic variables and ESL subjects' reading achievements, produced a number of observations worth noting (see pp. 134-146). Cross tabulation indicated discernible patterns between the ESL students' reading performance and the following independent variables: language background; length of residence in the United States; amount of English spoken at home; and hours of television watching per day. No clear patterns were discovered between the ESL students' reading performance and their sex, sibling position, number of library visits per month, amount of ESL instruction in the United States, and students' socioeconomic status. It was concluded that the cross tabular examination may not have disentangled intervening variables. An analysis, which allows for simultaneous determination of several variables, such as multiple regression analysis might have been appropriate.

Limitations of the Investigation

These results must be interpreted within the limitations of this study. Certain weaknesses relative to the test sample, the tests, and the data analysis were apparent. The following section of this dissertation presents the limitations in the study.

1. Ideally, the ESL students tested for this research should have been randomly selected from among all ESL students in the U.S. schools. This was not possible. However, when data from questionnaires sent to the school systems in the 20 largest U.S. university towns were examined, the replies indicated that in general, the Madison Public Schools' ESL program was representative of average ESL programs in size and student population. (See Appendix G for the questionnaire and school systems.) Even though an effort was made to determine the representativeness of the Madison ESL population, the results of this investigation are not universally generalizable.
2. A second limitation in this study involved the measures of reading comprehension, listening comprehension, and word-identification. Because these measures--a standardized reading comprehension test, a standardized listening comprehension test, and a non-standardized word-identification test--were developed for use with native speakers of English, they may have invalidated the results to a degree. Yet, since ESL learners in U.S. schools are typically evaluated by means of standardized tests developed for native speakers, the use of the standardized measures seemed justifiable here.
3. Another limitation related to the measurement instrument, was the method of random deletion of words in the cloze tests of the word-identification measure. The random

deletion had to be employed in the translated cloze tests, though previous research has examined the effectiveness of the translated cloze procedure only in passages with nth word deletion.

4. The fifth limitation of this study was relative to the data collection. The information on the parent-student-teacher questionnaire was gathered through school records, and interviews with parents, students, and teachers. While the questionnaire was essential, its very nature provided no means for determining how valid the elicited responses were.

5. The data analysis relative to the relationship between ESL learners' reading comprehension and the background factors, presented a final limitation. In the discussion of the results, it was suggested that cross tabulation of the data may not have disentangled possible intervening variables.

Conclusions and Implications for Classroom Practice

In this section, the conclusions and implications for classroom practice are discussed relative to the findings of this study. They must, of course, be viewed with the limitations of the investigation in mind.

1. Word-identification skills of native English-speaking students differ from those of ESL students. When the reading levels were the same, native English-speaking

students performed better than ESL students on the majority of the word-identification tasks. Specifically, it was found that the native speakers at each reading level in this study performed significantly better than ESL students on the items in the "plurals," and "phonics" sub-sections. Even though cause and effect relationships were not examined in this study, it would be advantageous for ESL and classroom teachers to consider whether or not teaching of these skills is necessary for ESL learners' reading comprehension. That is, ESL learners may be able to comprehend what they read without having to recognize plurals in English or know letter-sound correspondences as well as their native English-speaking counterparts. On the other hand, the findings showed that native English-speaking students did not perform significantly better on the "compound words" and "possessives" sub-sections at the three reading levels. Thus, it may be important for ESL readers' comprehension that they recognize structures such as compound words and possessives.

2. The results of this study showed that differences existed in word-identification skills of ESL readers at the sixth-grade reading level and those of their counterparts at the fourth-grade reading level. No significant differences, however, were discovered in the following sub-sections: "consonants,"

"vowels," and "syllables." In the rationale for this question, it was suggested that differences in the sub-skills between readers at the two levels may imply developmental stages in the acquisition of these skills and that those skills which emerge first should be taught first. However, later in the present study, it was pointed out that 5 of the 23 fourth-grade level readers were elementary students, while sixth-grade level readers were all middle or high school students. It is quite likely that these differences in sub-skills emerged because elementary children had been taught decoding skills by their classroom or ESL teachers, who often assist their students in their classroom work. Therefore, to recommend teaching phonics skills (vowels, consonants, and syllables) because they seem to emerge first, being equally developed at the fourth- and sixth-grade reading levels, is not appropriate on the basis of this study. Another implication based on the findings could be to recommend training fourth-grade level ESL readers in the sub-skills in which sixth-grade level readers were superior. Again, the discussion of the results indicated that the superiority of sixth-grade readers in these skills (plurals, compound words, possessives, and affixes) may have been caused by the instructional emphasis of structural meaning in higher grades.

3. Since a positive correlation was found between ESL learners' listening and reading skills, ESL reading instruction should integrate listening and reading skills. The present study did not, however, discover a positive correlation at the beginning level. This finding suggests that listening skills mya not be important at that level. The implication is that reading instruction might not have to be delayed until an ESL child understands spoken English.
4. No association was found between ESL children's first language background and their performance on word-identification tasks. This finding is in accord with several previous studies which have failed to discover a relationship between second-language learners' first language background and their performance on certain English structures. Therefore, teachers should not expect their students to learn English structures according to the similarity or dissimilarity of their first language with English. By implication, the training of ESL teachers themselves should concentrate on the a posteriori approach in contrastive analysis rather than on the a priori approach.
5. The results indicated that trans-lingualism in reading is not affected by the structure of the first language. Therefore, it may not be advisable for ESL programs and classroom teachers to spend their valuable time evaluating

ESL children's reading skills in the first language.

6. Even though the results related to the effects of the background factors in ESL reading performance are not conclusive, the findings, with respect to the personal and socioeconomic characteristics, may also have implications for ESL instruction. In allocating their limited resources and in advising parents as to their role, it might be of value for ESL and classroom teachers to know the following:

    a. Spanish-speaking ESL students who are immigrants with long residence in this country, generally have low reading abilities for their grade levels. If ESL instruction is effective, more resources should be spent with those students.

    b. The amount of English spoken at home has a positive effect on ESL reading. Parents who speak English (even as a second language) should be informed of this relationship.

    c. Hours of television watching per day did not appear to be related to ESL reading. While television exposure may improve oral or aural English skills, it may come at the cost of reduced reading skills.

    d. Sex, number of siblings and sibling position, public library visits, amount of ESL instruction, and parents' socioeconomic status have no simple association with ESL learners' reading skills. More sophisticated future research may find such associations; consequently, conclusive implications cannot be offered for ESL classroom practice.

Implications for Future Research

In light of the findings and the limitations of this investigation, the following implications for future research are offered:

1. This study should be validated with a sample which has been randomly selected from the population of ESL learners in this country or at least, with a sample similar to that of the present study.
2. To verify the results of the present study and to learn more about other tests used with ESL learners, future experiments should employ other reading and listening comprehension, and word-identification tests. Such an approach would also lead to a much-needed comparison of language proficiency tests with the reading measures.
3. Studies should be conducted using cloze passages with nth word deletions, both in English and in the student's first language, so that comparisons could be made with previous research which has employed the cloze procedure with ESL learners.
4. In the present investigation, reading skills in the first language were assessed at the fourth- and sixth-grade reading levels. Future research should explore ways to test ESL learners' first-language reading skills at a lower reading level. An appropriate measure would have to be applicable with ESL learners from various linguistic backgrounds.
5. To study the relationship of certain background variables to ESL learners' reading comprehension, an analysis which allows for simultaneous determination of several variables, such as

multiple regression analysis, ought to be considered.

6. For more definitive answers about the importance of reading sub-skills in ESL instruction, a study should be conducted which would control for the instructional factors.

A Final Word

In second-language acquisition research, agreement seems to have emerged concerning the desirability of more empirical studies. Several authorities in the ESL field (Brown, 1974; Cooper, 1978; Paulston, 1978) have recommended that in place of descriptive studies, research in second-language field should turn to empirical evidence. Based upon the opinions of ESL researchers and on the teaching experience of the present investigator, there are several major educational issues involving the appropriate pedagogical approaches in ESL teaching. Among the major areas in which empirical research could provide guidance are: the effectiveness of ESL versus bilingual education, implementation of language testing, the relevance of background variables to ESL learning, and the effect of formal ESL instruction on learning.

First, with regard to ESL and bilingual education, Cooper (1978), agreeing with several previous researchers, wrote that the relationship of ESL to bilingual education is important and deserves more attention. In particular, research is greatly needed to investigate the question whether reading should be introduced in English or

in the first language of the child. A second general area of needed research is the field of language testing. Cooper (1978) wrote: "For example, the availability of standardized tests and reliable measuring instruments for ESL learners other than adults appears to be in a fledgling state" (p. 135). The present investigator concurs and would add that not enough attention has been given to the links that exist between studies assessing ESL learners' performance in ESL classes as opposed to regular school or university situations. Third, the effects of individual, social, and environmental variables in second language learning were mentioned as areas in which research is needed by Tarone, Swain, and Fathman (1976) in their evaluation of existing research. Fourth, the question of the effect of specialized ESL instruction on learning needs further examination.

The present study addressed and offered further research suggestions with respect to the second, third, and fourth issues. Concerning the first issue of reading instruction in ESL versus bilingual education, studies similar to the earlier mentioned St. Lambert (1972, 1973) and the Culver City (1974) experiments should be conducted in the bilingual education programs in this country for more definite answers. In future research on all of these issues, better and more comprehensive methods of data gathering and analysis should be sought for educational applications of research. In accord with Tarone, Swain, and Fathman (1976), the present investigator feels that only a sequence of successful replications of the

suggested studies will be able to establish the reliability of their findings.

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Appendix A

Word-identification Tests

Beginning Level

WORD IDENTIFICATION

Name _____

_____

Grade _____

Teacher _____

School _____

STRUCTURE (Plurals)
Beginning Level

Read each of the words below and decide if the word describes ONE thing or MORE than one thing. If the word describes one thing, circle ONE. If the word describes more than one thing, circle MORE.

A.	leaf	ONE	MORE
B.	children	ONE	MORE

1.	cows	ONE	MORE
2.	kiss	ONE	MORE
3.	plane	ONE	MORE
4.	teeth	ONE	MORE
5.	feet	ONE	MORE

STRUCTURE (Compound Words)

The words below are made-up compound words but they are built from real words. Draw a line between the two parts of each compound word.

A.	s p r i n g | m a k e r	B.	d o o r f r o n t
1.	r a m p w a l k	2.	b o a t d r o p
3.	p l a y m o b i l e	4.	s u p p e r j u m p e r
5.	d a y m a t e	6.	j e l l y f a c e
7.	a p p l e m a n	8.	c a r m a r t
9.	r u g w i p e r	10.	m o o n b a l l
11.	d o o r p l a t e	12.	n i g h t f r i g h t
13.	s h i r t c a s e	14.	b e d s n a c k
15.	o v e r c h a n g e		

CONTEXT (Maze)
Beginning Level

Read each sentence below. When you come to the part of the sentence where there are three word choices, circle the word which makes the most sense.

A.	He ate an ice cream	cone. truck. might.	
B.	My cat licks her	brown paws eyes	after she eats.

1.	The children spashed and played on the raft at the city		running. beach. dump.
2.	When Babies Dogs	cry when they are wet or hungry or sick because they	do not talk yet.
3.	I used to	wish sure think	that all dogs would bite me, but now I know better.
4.	Mary and I walked down the road		place. together. without.
5.	When While Somehow	John wants money, he gets it from his father.	

PHONICS (Consonants)

For each row, look at the made-up word in the box and find the underlined part. Then look at the rest of the words in the row. See how they each have an underlined part, too? Now circle the word in the row whose underlined part sounds just like the underlined part of the word in the box.

A.	mub	not	map	had
B.	sim	sugar	she	so

1.	yed	saw	you	ned
2.	hinny	gong	shimmy	knew
3.	dap	fad	bat	pot
4.	fon	oat	din	mat
5.	bished	sure	bother	school
6.	eld	ode	lot	eek
7.	knote	can	back	steal

PHONICS (Consonants) (continued)

8.	gulk	edge	gym	egg
9.	tamb	mine	blue	jab
10.	pung	sure	sound	something
11.	gyf	gong	got	jam
12.	rad	wrote	had	gab
13.	betten	this	time	thin
14.	coth	ice	sold	cone
15.	zet	let	fuzz	set
16.	deach	brought	child	lock
17.	stomb	nice	fib	mop
18.	gaph	even	funny	though
19.	doaf	phone	even	of
20.	acald	child	calf	face

PHONICS (Vowels)

For each row, look at the made-up word in the box and find the underlined part. Then look at the rest of the words in that row. See how they each have an underlined part, too? Now circle the word in the row whose underlined part sounds just like the underlined part of the word in the box.

A.	hode	moon	soap	on
B.	ny	every	yes	high

1.	zell	feel	real	belted
2.	crube	fur	umbrella	room
3.	flot	open	hopping	flow
4.	plack	pan	place	away
5.	flippen	if	isle	my
6.	ufty	you	unless	unite
7.	krale	tall	am	snail
8.	dile	sky	will	pin

PHONICS (Vowels) (continued)

9.	preve	dented	ever	steam
10.	dofe	often	boat	top
11.	dight	pile	bid	empty
12.	stry	mostly	lie	yellow
13.	poil	going	owl	boy
14.	loat	August	bone	cow
15.	dause	aim	claw	sap
16.	snay	made	about	jam
17.	leem	fed	eight	even
18.	toop	new	no	nod
19.	fow	soup	out	nut
20.	fain	said	mad	cane

PHONICS (Syllabication)

For each of the words below, circle the number of syllables in the word.

A.	happy	1	2	3	4	5
B.	wonderful	1	2	3	4	5

1.	American	1	2	3	4	5
2.	called	1	2	3	4	5
3.	friendlier	1	2	3	4	5
4.	elevator	1	2	3	4	5
5.	thorough	1	2	3	4	5
6.	desegregation	1	2	3	4	5
7.	foolishness	1	2	3	4	5
8.	stages	1	2	3	4	5
9.	Halloween	1	2	3	4	5

PHONICS (Syllabication) (continued)

10.	sound	1	2	3	4	5
11.	difficulty	1	2	3	4	5
12.	hopscotch	1	2	3	4	5
13.	straight	1	2	3	4	5
14.	peeling	1	2	3	4	5
15.	togetherness	1	2	3	4	5
16.	frame	1	2	3	4	5
17.	vacation	1	2	3	4	5
18.	nasty	1	2	3	4	5
19.	enthusiasm	1	2	3	4	5
20.	chase	1	2	3	4	5

Intermediate Level

WORD IDENTIFICATION

Name _____

_____

Grade _____

Teacher _____

School _____

STRUCTURE (Plurals)

Read each of the words below and decide if the word describes ONE thing, MORE than one thing or does not tell how many. If the word describes one thing, circle ONE. If the word describes more than one thing, circle MORE. If the word does not tell how many, circle NEITHER.

A.	leaf	ONE	MORE	NEITHER
B.	children	ONE	MORE	NEITHER
C.	small	ONE	MORE	NEITHER

1.	teeth	ONE	MORE	NEITHER
2.	kiss	ONE	MORE	NEITHER
3.	army	ONE	MORE	NEITHER
4.	central	ONE	MORE	NEITHER
5.	geese	ONE	MORE	NEITHER
6.	library	ONE	MORE	NEITHER

STRUCTURE (Plurals) (continued)

7.	illness	ONE	MORE	NEITHER
8.	add	ONE	MORE	NEITHER
9.	oxen	ONE	MORE	NEITHER
10.	men	ONE	MORE	NEITHER
11.	always	ONE	MORE	NEITHER
12.	bushes	ONE	MORE	NEITHER
13.	sweeteners	ONE	MORE	NEITHER
14.	nice	ONE	MORE	NEITHER
15.	holidays	ONE	MORE	NEITHER
16.	royal	ONE	MORE	NEITHER
17.	shepherd	ONE	MORE	NEITHER
18.	paws	ONE	MORE	NEITHER

STRUCTURE (Plurals) (continued)

19.	hallway	ONE	MORE	NEITHER
20.	snowman	ONE	MORE	NEITHER

STRUCTURE (Compound Words) NAME_____

There are many different types of compound words. Each kind has a special meaning. A way to understand the meaning of some compound words is to use these three phrases:

1) of a 2) for a 3) like a

Below are examples of compound words which can be defined by using one of these three phrases:

- fishbone — This word means *bone of a fish.* (This would be a type 1 compound word.)
- dog biscuit — This word means *biscuit for a dog.* (This would be a type 2 compound word.)
- boxcar — This word means *car like a box.* (This would be a type 3 compound word.)

Mark each of the compound words below with the number 1, 2, or 3, depending on which phrase can best be used to explain the meaning of the word. (You may check your answer by putting the parts of the compound word into the corresponding sample sentence to see if the sentence makes sense.)

A. soapdish _____	B. potato chip _____	C. rock candy _____
1. sunset _____	2. mudpie _____	3. firefly _____
4. playground _____	5. bulldog _____	6. snowman _____
7. meatball _____	8. cake pan _____	9. starfish _____
10. golf course _____	11. houseboat _____	12. tire chain _____
13. frogman _____	14. hambone _____	15. tennis court _____

PHONICS (Consonants)

For each row, look at the made-up word in the box and find the underlined part. Then look at the rest of the words in the row. See how they each have an underlined part, too? Now circle the word in the row whose underlined part sounds just like the underlined part of the word in the box.

A.	mub	not	map	had
B.	sim	sugar	she	so

1.	yed	saw	you	ned
2.	hinny	gong	shimmy	knew
3.	dap	fad	bat	pot
4.	fon	oat	din	mat
5.	bished	sure	bother	school
6.	eld	ode	lot	eek
7.	knote	can	back	steal

PHONICS (Consonants) (continued)

8.	gulk	edge	gym	egg
9.	tamb	mine	blue	jab
10.	pung	sure	sound	something
11.	gyf	gong	got	jam
12.	rad	wrote	had	gab
13.	betten	this	time	thin
14.	coth	ice	sold	cone
15.	zet	let	fuzz	set
16.	deach	brought	child	lock
17.	stomb	nice	fib	mop
18.	gaph	even	funny	though
19.	doaf	phone	even	of
20.	scald	child	calf	face

STRUCTURE (Possessives)

For each of the following sentences, decide if the underlined word shows belonging or ownership. If it does show ownership, mark YES, if it doesn't, mark NO.

A.	Henry's sister was very tall.	YES	NO
B.	It's a nice day.	YES	NO

1.	Sam's a good dog.	YES	NO
2.	The twins' clothes were just alike.	YES	NO
3.	Charles' yard was very big.	YES	NO
4.	Here's your doll.	YES	NO
5.	The cat chased its tail.	YES	NO
6.	My apples were not ripe yet.	YES	NO
7.	Ten boys were late to school.	YES	NO
8.	That girl's dress was torn.	YES	NO

STRUCTURE (Possessives) (continued)

9.	Dan's grades were not high.	YES	NO
10.	Jane washed the dirty windows.	YES	NO
11.	Saturday's game was called off.	YES	NO
12.	The pigs rolled in the mud.	YES	NO
13.	Tom's a good swimmer.	YES	NO
14.	We all liked Sue's singing.	YES	NO
15.	The bells rang for class.	YES	NO
16.	Did your team win or lose?	YES	NO
17.	The biggest house was Johnny's.	YES	NO
18.	There's nothing more to be said.	YES	NO
19.	Steve's jokes were very funny.	YES	NO
20.	In the hot sun, everyone's cones melted.	YES	NO

PHONICS (Vowels)

For each row, look at the made-up word in the box and find the underlined part. Then look at the rest of the words in that row. See how they each have an underlined part, too? Now circle the word in the row whose underlined part sounds just like the underlined part of the word in the box.

A.	h<u>o</u>de	m<u>oo</u>n	s<u>oa</u>p	<u>o</u>n
B.	n<u>y</u>	ever<u>y</u>	<u>y</u>es	h<u>igh</u>

1.	z<u>e</u>ll	f<u>ee</u>l	r<u>ea</u>l	b<u>e</u>lted
2.	cr<u>u</u>be	f<u>u</u>r	<u>u</u>mbrella	r<u>oo</u>m
3.	fl<u>o</u>t	<u>o</u>pen	h<u>o</u>pping	fl<u>ow</u>
4.	pl<u>a</u>ck	p<u>a</u>n	pl<u>a</u>ce	<u>a</u>way
5.	flippen	<u>i</u>f	<u>i</u>sle	m<u>y</u>
6.	<u>u</u>fty	y<u>ou</u>	<u>u</u>nless	<u>u</u>nite
7.	kr<u>a</u>le	t<u>a</u>ll	<u>a</u>m	sn<u>ai</u>l
8.	d<u>i</u>le	sk<u>y</u>	w<u>i</u>ll	p<u>i</u>n

PHONICS (Vowels) (continued)

9.	preve	dented	ever	steam
10.	dofe	often	boat	top
11.	dight	pile	bid	empty
12.	stry	mostly	lie	yellow
13.	poil	going	owl	boy
14.	loat	August	bone	cow
15.	dause	aim	claw	sap
16.	snay	made	about	jam
17.	leem	fed	eight	even
18.	toop	new	no	nod
19.	fow	soup	out	nut
20.	fain	said	mad	cane

STRUCTURE (Affixes)

Each of the sentences below has a word missing. Read each sentence and then circle the word you think fits best.

A.	Our teacher spoke loudly, she was_____with us.		
	subpleased	displeased	prepleased
B.	When I broke my favorite toy I was _____.		
	happyful	happiest	unhappy

1.	The cat walked _____across the room.		
	softless	softly	softness
2.	Sue was _____and kept everything.		
	selfy	selfless	selfish
3.	Of all the pictures, hers turned out the_____.		
	nicer	nicest	nicely
4.	Blind people are _____.		
	sightless	sighted	sightful
5.	_____the door so we can get in.		
	Lock	Locked	Unlock

STRUCTURE (Affixes) (continued)

6.	The boys were _____to run on the icy sidewalk. fooling foolproof foolish
7.	It was _____to sit quietly and watch the colorful sunset. pleasure pleasant pleased
8.	John _____his lines in the school play every day. practicing practically practiced
9.	The parade was exciting and_____. colorless colorful coloring
10.	Some people feel that _____should open doors for ladies. gentlemen gentleness gentlest
11.	The sun was so hot that it was almost _____ for the ballplayers. bearer bearable unbearable
12.	Father settled happily into his _____armchair. comfortable comforted comfortless
13.	Even though he was lost, the little boy looked calm and _____. frightening frighted unafraid
14.	After the war, the city looked like a _____. wasted wasteland wastful

STRUCTURE (Affixes) (continued)

15	Because of his _____, Sam couldn't run very fast.		
	heavy	heaviness	heaviest
16.	It was _____that Bob's horse would win the race.		
	doubtful	undoubtedly	doubting
17.	Pure water is almost _____.		
	tasting	tasteless	tastefully
18.	_____you will need help with this difficult problem.		
	Uncertainty	Certainly	Certificate
19.	The tennis player ran _____to hit the ball.		
	backing	backish	backward
20.	The _____woman needed a cane to help her walk.		
	ages	aged	ageless

CONTEXT (Cloze)
Intermediate Level

On the following pages you will find a story about a mysterious suitcase. At certain places in the story, words are missing. Your job, as you read the story, is to be a detective and decide what words belong in the blank spaces. When you decide what each missing word is, print it as neatly as you can in the correctly-numbered space on the right-hand side of the page. Your answers should always be only one word. We will do a few practice items together so that everyone will understand what to do.

A.	He ate an ice cream _____.	(A)_____

Sometimes more than one word will fit. Don't worry about this, but simply choose one. As long as your word makes sense in the whole story, it is a correct answer. Now try the next practice item.

B.	My cat licks her _____ after she eats.	(B)_____

Sometimes you may have to read the next sentence to figure our the missing word. If you can't decide what the missing word is in a particular sentence, reread the sentence or read further to see if you can find more clues about the missing word. Now try sample item C.

C.	_____ cry a lot. When they learn to talk, babies no longer need to cry so much because they can ask for things that they want.	(C)_____

When you have finished the story, you can check your answers by rereading the story, filling your own words in the blanks to see if the story makes sense. OK--go ahead and read the story.

CONTEXT (Cloze) (continued)
Intermediate Level

"The Mystery of the Suitcase"

Mrs. Emory _____ in a little house. Her kitchen door looked out on tall trees. In the summer the kitchen door stood wide _____. 1._____ 2._____

Charles Workman lived in a big two-story _____ nearby. The Workman family were new _____ the neighborhood. Charles and Mrs. Emory had become good _____. He liked to sit on the steps outside her door and watch her make cookies. 3._____ 4._____ 5._____

Day after day Mrs. Emory _____ cookies in her kitchen. No one in _____ neighborhood knew why. Those cookies were a mystery. But Charles did know what kind of cookies they were. 6._____ 7._____

On _____ Mrs. Emory always made gingersnaps. Monday was a spicy day. 8._____

On Tuesday she made brownies. The air around _____ kitchen was pretty sweet on Tuesday. 9._____

The next day she made peanut-butter cookies. Charles Workman _____ these best. 10._____

Thursday cookies were never the same.

"Thursday is my leftover _____," Mrs. Emory said. 11._____

And the last cooky day of each week was for _____ Emory's special, own crunchy oatmeal cookies. 12._____

On Saturday morning Mrs. Emory went off on a six o'clock bus. Where she went _____ a mystery. She took _____ heavy, old suitcase. She came home in _____ evening on a six o'clock _____. Then the 13._____ 14._____ 15._____ 16._____

CONTEXT (Cloze) (continued)
Intermediate Level

suitcase was heavier.

Charles liked to carry the suitcase to the bus and carry it home again at night. Mrs. Emory always said, "Are you _____ enough to carry the suitcase today? It's heavy." 17._____

He knew he was strong enough! At the bus he watched Mrs. Emory hop aboard. She was as quick as anything. Her hair _____ white. Her shoes were old and a little 18._____ _____ big. Her coat _____ long, and so were her 19._____ skirts. _____ hat was green . 20._____

Charles handed the heavy _____ up to her, and she 21_____ handed him a bag. "Here is your pay, and thank _____, 22._____ Charles Workman. The pay was exactly the _____ 23._____ every week-three Monday cookies, two Tuesday _____, 24._____ and one each for the other three days. 25._____

PHONICS (Syllabication)

For each of the words below, circle the number of syllables in the word.

A.	happy	1	2	3	4	5
B.	wonderful	1	2	3	4	5

1.	American	1	2	3	4	5
2.	called	1	2	3	4	5
3.	friendlier	1	2	3	4	5
4.	elevator	1	2	3	4	5
5.	thorough	1	2	3	4	5
6.	desegregation	1	2	3	4	5
7.	foolishness	1	2	3	4	5
8.	stages	1	2	3	4	5
9.	Halloween	1	2	3	4	5

PHONICS (Syllabication) (continued)

10.	sound	1	2	3	4	5
11.	difficulty	1	2	3	4	5
12.	hopscotch	1	2	3	4	5
13.	straight	1	2	3	4	5
14.	peeling	1	2	3	4	5
15.	togetherness	1	2	3	4	5
16.	frame	1	2	3	4	5
17.	vacation	1	2	3	4	5
18.	nasty	1	2	3	4	5
19.	enthusiasm	1	2	3	4	5
20.	chase	1	2	3	4	5

Advanced Level

WORD IDENTIFICATION

Name _____

_____

Grade _____

Teacher _____

School _____

STRUCTURE (Plurals)

Read each of the words below and decide if the word describes ONE thing, MORE than one thing or does not tell how many. If the word describes one thing, circle ONE. If the word describes more than one thing, circle MORE. If the word does not tell how many, circle NEITHER.

A.	leaf	ONE	MORE	NEITHER
B.	children	ONE	MORE	NEITHER
C.	small	ONE	MORE	NEITHER

1.	teeth	ONE	MORE	NEITHER
2.	kiss	ONE	MORE	NEITHER
3.	army	ONE	MORE	NEITHER
4.	central	ONE	MORE	NEITHER
5.	geese	ONE	MORE	NEITHER
6.	library	ONE	MORE	NEITHER

STRUCTURE (Plurals) (continued)

7.	illness	ONE	MORE	NEITHER
8.	add	ONE	MORE	NEITHER
9.	oxen	ONE	MORE	NEITHER
10.	men	ONE	MORE	NEITHER
11.	always	ONE	MORE	NEITHER
12.	bushes	ONE	MORE	NEITHER
13.	sweeteners	ONE	MORE	NEITHER
14.	nice	ONE	MORE	NEITHER
15.	holidays	ONE	MORE	NEITHER
16.	royal	ONE	MORE	NEITHER
17.	shepherd	ONE	MORE	NEITHER
18.	paws	ONE	MORE	NEITHER

STRUCTURE (Plurals) (continued)

19.	hallway	ONE	MORE	NEITHER
20.	snowman	ONE	MORE	NEITHER

STRUCTURE (Compound Words) NAME_____

There are many different types of compound words. Each kind has a special meaning. A way to understand the meaning of some compound words is to use these three phrases:

1) of a 2) for a 3) like a

Below are examples of compound words which can be defined by using one of these three phrases:

•fishbone — This word means *bone* of a *fish*. (This would be a type 1 compound word.)

•dog biscuit — This word means *biscuit* for a *dog*. (This would be a type 2 compound word.)

•boxcar — This word means *car* like a *box*. (This would be a type 3 compound word.)

Mark each of the compound words below with the number 1, 2, or 3, depending on which phrase can best be used to explain the meaning of the word. (You may check your answer by putting the parts of the compound word into the corresponding sample sentence to see if the sentence makes sense.)

A. soapdish _____	B. potato chip _____	C. rock candy _____
1. sunset _____	2. mudpie _____	3. firefly _____
4. playground _____	5. bulldog _____	6. snowman _____
7. meatball _____	8. cake pan _____	9. starfish _____
10. golf course _____	11. houseboat _____	12. tire chain _____
13. frogman _____	14. hambone _____	15. tennis court_____

PHONICS (Consonants)

For each row, look at the made-up word in the box and find the underlined part. Then look at the rest of the words in the row. See how they each have an underlined part, too? Now circle the word in the row whose underlined part sounds just like the underlined part of the word in the box.

A.	mub	not	map	had
B.	sim	sugar	she	so

1.	yed	saw	you	ned
2.	hinny	gong	shimmy	knew
3.	dap	fad	bat	pot
4.	fon	oat	din	mat
5.	bished	sure	bother	school
6.	eld	ode	lot	eek
7.	knote	can	back	steal

PHONICS (Consonants) (continued)

8.	gulk	edge	gym	egg
9.	tamb	mine	blue	jab
10.	pung	sure	sound	something
11.	gyf	gong	got	jam
12.	rad	wrote	had	gab
13.	betten	this	time	thin
14.	coth	ice	sold	cone
15.	zet	let	fuzz	set
16.	deach	brought	child	lock
17.	stomb	nice	fib	mop
18.	gaph	even	funny	though
19.	doaf	phone	even	of
20.	acald	child	calf	face

STRUCTURE (Possessives)

For each of the following sentences, decide if the underlined word shows belonging or ownership. If it does show ownership, mark YES, if it doesn't, mark NO.

A.	Henry's sister was very tall.	YES	NO
B.	It's a nice day.	YES	NO

1.	Sam's a good dog.	YES	NO
2.	The twins' clothes were just alike.	YES	NO
3.	Charles' yard was very big.	YES	NO
4.	Here's your doll.	YES	NO
5.	The cat chased its tail.	YES	NO
6.	My apples were not ripe yet.	YES	NO
7.	Ten boys were late to school.	YES	NO
8.	That girl's dress was torn.	YES	NO

STRUCTURE (Possessives) (continued)

9.	Dan's grades were not high.	YES	NO
10.	Jane washed the dirty windows.	YES	NO
11.	Saturday's game was called off.	YES	NO
12.	The pigs rolled in the mud.	YES	NO
13.	Tom's a good swimmer.	YES	NO
14.	We all liked Sue's singing.	YES	NO
15.	The bells rang for class.	YES	NO
16.	Did your team win or lose?	YES	NO
17.	The biggest house was Johnny's.	YES	NO
18.	There's nothing more to be said.	YES	NO
19.	Steve's jokes were very funny.	YES	NO
20.	In the hot sun, everyone's cones melted.	YES	NO

PHONICS (Vowels)

For each row, look at the made-up word in the box and find the underlined part. Then look at the rest of the words in that row. See how they each have an underlined part, too? Now circle the word in the row whose underlined part sounds just like the underlined part of the word in the box.

A.	hode	moon	soap	on
B.	ny	every	yes	high

1.	zell	feel	real	belted
2.	crube	fur	umbrella	room
3.	flot	open	hopping	flow
4.	plack	pan	place	away
5.	flippen	if	isle	my
6.	ufty	you	unless	unite
7.	krale	tall	am	snail
8.	dile	sky	will	pin

PHONICS (Vowels) (continued)

9.	preve	dented	ever	steam
10.	dofe	often	boat	top
11.	dight	pile	bid	empty
12.	stry	mostly	lie	yellow
13.	poil	going	owl	boy
14.	loat	August	bone	cow
15.	dause	aim	claw	sap
16.	snay	made	about	jam
17.	leem	fed	eight	even
18.	toop	new	ro	nod
19.	fow	soup	out	nut
20.	fain	said	mad	cane

STRUCTURE (Affixes)

Each of the sentences below has a word missing. Read each sentence and then circle the word you think fits best.

A.	Our teacher spoke loudly, she was_____with us.		
	subpleased	displeased	prepleased
B.	When I broke my favorite toy I was _____.		
	happyful	happiest	unhappy
1.	The cat walked _____across the room.		
	softless	softly	softness
2.	Sue was _____and kept everything.		
	selfy	selfless	selfish
3.	Of all the pictures, hers turned out the_____.		
	nicer	nicest	nicely
4.	Blind people are _____.		
	sightless	sighted	sightful
5.	_____the door so we can get in.		
	Lock	Locked	Unlock

STRUCTURE (Affixes) (continued)

6.	The boys were _____to run on the icy sidewalk.		
	fooling	foolproof	foolish
7.	It was _____to sit quietly and watch the colorful sunset.		
	pleasure	pleasant	pleased
8.	John _____his lines in the school play every day.		
	practicing	practically	practiced
9.	The parade was exciting and_____.		
	colorless	colorful	coloring
10.	Some people feel that _____should open doors for ladies.		
	gentlemen	gentleness	gentlest
11.	The sun was so hot that it was almost _____ for the ballplayers.		
	bearer	bearable	unbearable
12.	Father settled happily into his _____armchair.		
	comfortable	comforted	comfortless
13.	Even though he was lost, the little boy looked calm and _____.		
	frightening	frighted	unafraid
14.	After the war, the city looked like a _____.		
	wasted	wasteland	wastful

STRUCTURE (Affixes) (continued)

15	Because of his _____, Sam couldn't run very fast.		
	heavy	heaviness	heaviest
16.	It was _____that Bob's horse would win the race.		
	doubtful	undoubtedly	doubting
17.	Pure water is almost _____.		
	tasting	tasteless	tastefully
18.	_____you will need help with this difficult problem.		
	Uncertainty	Certainly	Certificate
19.	The tennis player ran _____to hit the ball.		
	backing	backish	backward
20.	The _____woman needed a cane to help her walk.		
	ages	aged	ageless

CONTEXT (Cloze)
Advanced Level

On the following pages you will find a story about two animals with bad habits. At certain places in the story, words are missing. Your job, as you read the story, is to be a detective and decide what words belong in the blank spaces. When you decide what each missing word is, print it as neatly as you can in the correctly-numbered space on the right-hand side of the page. Your answers should always be only one word. We will do a few practice items together so that everyone understands what to do.

A.	He ate an ice cream _____.	(A)_____

Sometimes more than one word will fit. Don't worry about this but simply choose one. As long as your word makes sense with the whole story, it is a correct answer. Try the next practice item.

B.	My cat licks her _____ after she eats.	(B)_____

Sometimes you may have to read the next sentence to figure out the missing word. If you can't decide what the missing word is in a particular sentence, reread the sentence or read further to see if you can find more clues about the missing word. Now try sample item C.

C.	_____ cry a lot. When they learn to talk, babies no longer need to cry so much because they can ask for things that they want.	(C)_____

When you have finished the story, you can check your answers by rereading the story and filling your own words for the blanks to see if the story now makes sense. OK--go ahead and read the story.

CONTEXT (Cloze) (continued)
Advanced Level

"Nature Cannot Be Changed"

One day, a rabbit and a monkey were _____ 1. _____
together. However, while talking, each of them constantly gave in to his own bad habit. The monkey, of course, kept scratching himself with _____ paw. The 2. _____
rabbit, fearing to be attacked by an enemy, kept turning his _____ about in all directions. The two 3. _____
_____ were not able to keep still. 4. _____

"It's really amazing," _____ the rabbit to 5. _____
the monkey," that you cannot stop scratching yourself _____for a moment." 6. _____

"It's not more amazing than to see you always turning your head for _____ good reason," answered 7. _____
the monkey.

"Oh, I could _____ stop doing that," said the 8. _____
rabbit, "if only I wanted to."

"Very well! Let's see if you can. Let's both 9. _____
_____, you and I, to keep still. The _____ 10. _____
who moves first will lose the bet."

The rabbit agreed. And so they _____ 11. _____
watched to see if the other moved.

Soon it _____ impossible for both of them. 12. _____
The monkey _____ all over. Never in his life 13. _____
had he itched so badly. The rabbit, on the other
_____ ____, was sure that some enemy was going to jump 14. _____
on him from behind.

Finally, when the rabbit could _____ it no 15. _____

CONTEXT (Cloze) (continued)
Advanced Level

longer, he said, "Our bet did not mean that we could not tell each other stories to pass the time. Or did it?" "It did not," answered the monkey, forseeing some trick on the part of the rabbit. The monkey was _____ to use the same trick himself. "All right then, I'll start," said the rabbit. "Imagine, one day when I was in an _____ field, I was in terrible danger..." "Strangely enough the same thing happened to me one _____," interrupted the monkey. "Oh really?" _____ the rabbit. "I saw dogs jumping through the field in all _____. They came from the left, from the _____, from the front, from behind. I turned my head this way, that way...You see? Like this..." To make his point, the rabbit _____ his head in all the directions he had mentioned in his story.

Of course, the monkey too had a story to _____. "That day," he said, "I was bothered by a _____ of children who kept throwing stones at me. They threw one here and another there..." With each place he _____ in the story, he gave himself a good thump with his paw to stop the itching.

The rabbit, who knew why the monkey was doing that, burst out laughing. Then he said to his friend, "Let us be frank. As much as we would like to, we cannot change our natures. This proves it. Neither of us has won the bet, nor lost it."

16._____
17._____
18._____
19._____
20._____
21._____
22._____
23._____
24._____
25._____

PHONICS (Syllabication)

For each of the words below, circle the number of syllables in the word.

A.	happy	1	2	3	4	5
B.	wonderful	1	2	3	4	5

1.	American	1	2	3	4	5
2.	called	1	2	3	4	5
3.	friendlier	1	2	3	4	5
4.	elevator	1	2	3	4	5
5.	thorough	1	2	3	4	5
6.	desegregation	1	2	3	4	5
7.	foolishness	1	2	3	4	5
8.	stages	1	2	3	4	5
9.	Halloween	1	2	3	4	5

PHONICS (Syllabication) (continued)

10.	sound	1	2	3	4	5
11.	difficulty	1	2	3	4	5
12.	hopscotch	1	2	3	4	5
13.	straight	1	2	3	4	5
14.	peeling	1	2	3	4	5
15.	togetherness	1	2	3	4	5
16.	frame	1	2	3	4	5
17.	vacation	1	2	3	4	5
18.	nasty	1	2	3	4	5
19.	enthusiasm	1	2	3	4	5
20.	chase	1	2	3	4	5

Listening Comprehension Passages

and Questions

2C

Mary was nearly hit by a car last week. She was on her way to school in the morning. She walked down our street to the corner. Mary looked both ways and then began to cross.

A car was coming down the street very quickly. Mary saw the car and ran the rest of the way.

The man in the car was angry because he had to put on the brakes.

Mary was afraid, but she was glad she wasn't hurt.

Story 2C

1. Where was Mary going? _____

_____

2. What happened to Mary? _____

_____

3. How long ago was this? _____

_____

4. What did she do when she came to the corner before she crossed? _____

_____

5. What did the driver of the car do? _____

_____

6. How did the driver feel? _____

_____

7. How did Mary feel? _____

_____

4A

Yesterday Bob took a trip to a city market that was somewhat like a store but a great deal bigger. It didn't have any bread or canned goods like the grocery stores. But there were a great many big boxes of vegetables and fruits.

Bob was hungry and wanted just one plum or cherry to taste. He wondered if one of the men would sell him just one plum. Everyone was buying the fruit and vegetables by the whole crate. When Bob asked the man to sell him one plum, he laughed and gave Bob an extra large plum wrapped in paper but wouldn't take any money.

As he walked along eating the plum, Bob watched the men unloading the trucks and big trailers. They would chop open the top of the crate so that anyone could see the fruit. If a buyer liked the fruit, and was willing to pay the price, he might buy the entire truckload.

Story 4a

1. What is a city market like? _____

_____

2. What does the grocery store have that the city market doesn't have? _____

_____

3. What did he ask the man for? _____

_____

4. What did the man do? _____

_____

5. How much did Bob pay for the plum? _____

_____

6. What were the men doing to the trucks and trailers?

_____

7. Why did they open the crates? _____

_____

8. If a man liked the fruit, what might he do? _____

_____

6A

Elephants are found wild today only in warm regions--in tropical Africa and in India. The story was very different 50 thousand years ago. Then, two species of the elephant family roamed North America and Europe in vast numbers.

One of them was the mastodon. The mastodon lived in the eastern part of our country during the period of the Great Ice Age. In the swamps that were formed when the ice disappeared, many of the huge creatures were trapped and killed. We have found some of their skeletons. At a glance the mastodon must have looked much like the elephants of today, except that it was covered with coarse, woolly hair and its tusks were much larger. It was probably heavier than the elephants we know, but not taller. Its head was flatter and its lower jaw longer. Its teeth were not like the teeth of the elephants of today.

More than 200 years ago, the people of New England found bones of the mastodon when they dug ditches to drain swamps. At first they thought that the bones they found were bones of giant people. When they found teeth that weighed more than four pounds apiece, they decided that the giants were giants indeed.

Adapted by permission from *Animals of Yesterday* by Bertha Morris Parker (Evanston: Row, Peterson and Company, 1941), pp. 25-26.

Story 6a

1. Where are elephants found today? _____

_____

2. Where were elephants also found long ago? _____

_____

3. What happened to the mastodons when swamps were formed by melting ice? _____

_____

4. Give two differences between the mastodon and the elephants we see today. _____

_____

5. Why do you suppose that the elephants of today do not have woolly hair? _____

_____

6. Where were some of the bones of the mastodon found about 200 years ago? _____

_____

7. What kind of bones did the people think they had found? _____

_____

8. How heavy were some of the teeth they found? _____

_____

Appendix C

Translated Cloze Tests in Spanish and Vietnamese

"No Se Puede Cambiar La Naturaleza"

Un día, un conejo y un mono estaban_____ juntos. Pero mientras hablando, los dos se entregaban constantemente a su propia mala costumbre. El mono, por supuesto, seguía rascandose con_____pata. El conejo temia que un enemigo lo atacara y se volvía la _____constantemente por todas partes. Los dos _____no podían calmarse.

"Es increíble," _____ el conejo al mono, "que no puedes dejar de rascarte _____ por un momento.

"No es más increíble que verte siempre volviendo la cabeza _____ razon," contestó el mono. Yo, podría dejar de hacerlo _____," dijo el conejo," si quisiera.

"Bueno, vamos a ver si puedes._____ calmarnos. _____ ____ se mueva primero perdera la apuesta."

El conejo estaba de acuerdo. Entonces _____ se observaban para ver si el otro se movería.

Pronto, la situación _____ imposible para los dos. El mono tenía _____ por todo el cuerpo. Nunca en su vida la habia sentido tano. El conejo, por _____, estaba sequro que un enemigo lo iba a emboscar. Por fin, cuando el conejo ya no podía _____, dijo, "En nuestra apuesta no dijimos que no podíamos contarnos historias para pasar el tiempo. "O así fue?" "No, no fué así," contestó el mono, sospechaba que el conejo iba a ponerle una trampa. El mono _____ utilizar la misma trampa. "Bueno, yo mismo empezaré," dijo el conejo. "Imagínate, un día cuando estaba en un campo _____, estaba en un gran peligro..."

1._____
2._____
3._____
4._____
5._____
6._____
7._____
8._____
9._____
10._____
11._____
12._____
13._____
14._____
15._____
16._____
17._____
18._____

(Con't)

Sorprendentemente, un _____ me páso la misma cora," interrumpió el mono. "De verdad?" _____ el conejo. Ví perros saltando por el campo por todas _____. Vinieron de la izquierda, de la _____, del frente, y del fondo. Me volví la cabeza por aqui, y por allá...Ves? Así..." Para probar lo que quería decir, el conejo _____ la cabeza por todos los lados que menciona en su historia.

Por supuesto, el mono también tenía una historia para _____. "Ese día," dijo, "fuí molestado por un _____ de niños quienes me estaban tirando picdras.

Tiraron una aquí, y otra _____..." Con, cada lugar que_____, se dio una patada para aliriar la comezón. El conejo, que sabía por que el mono lo hacía, se echó a reír. Luego, dijo a sui amigo, "Hablemos claramente. Aunque queramos no podemos cambiar muestros habitos.

Elto pruebra que ni tú ni yo hemos ganado la apuesta, pero tampoco la hemos perdido.

19. _____
20. _____
21. _____
22. _____
23 _____
24 _____
25 _____
26 _____
27 _____

"El Misterio De La Maleta"

La Sra. Emory _____ en una casa. La puerta de su cocina daba a unos arboles altos. Durante el verano la puerta de su cocina estaba completemente _____. 1._____ 2._____

Carlos Obrero vivía cerca en una_____grande de dos pisos. La familia Obrero llevaba poco tiempo en el barrio. Carlos y la Sra. Emory se habían hecho buenos _____. Le gustaba sentarse en las escaleras que estaban frente a la puerte de ella y le gustaba verla hacer galletas. 3._____ 4._____

Dia tras dia, la Sra. Emory _____ galletas en su cocina. Nadie en _____ barrio sabia porque. Esas galletas eran un misterio. Pero Carlos sabia que clase de galletas eran. 5._____ 6._____

Los _____ la senora Emory siempre hacia galletitas de jengibre. El lunes era un dia delicioso. 7._____

Los martes hacia pasteles de chocolate. El aire de _____ cocina era muy dulce los martes. 8._____

El dia siquiente hacía galletas de crema de cacahuate. A Carlos Obrero le _____ más éstas. Las galletas del jueves nunca eran las mismas. "El jueves siempre es diferente?" dijo la Sra. Emory y el último día de hacer galletas estaba reservado para las galletas de avena esperiales y crujientes de la _____ Emory. 9._____ 10._____

Los sábados se iba la Sra. Emory en el autobús de las 6 a.m. A donde iba _____ un misterio. Lleraba _____ maleta vieja e pesada. Regresaba en el _____ de las seis de la tarde. La maleta pesaba aún más. 11._____ 12._____ 13._____

A Carlos le gustaka llevar la maleta al autobús y llevarla a casa

(Con't)

por la noche. La Sra. Emory siempre decía, "Eres suficientemente _____ para llevar la maleta hoy? Pesa."

El sabía que era bastante fuerte. El veia a la Sra. Emory subir al autobús rapidamente. _____ canas. Sus zapafos eran viejos y algo grandes. El abrigo _____ largo, lo mismo que la falada._____ sombrero era verde.

Carlos le dió a ella la _____ pesada y ella le dió una bolsa. "Aquí tienes tú paga, y gracias, Carlos Cbrero." El sueldo era _____ todas las semanas. Tres galletas del lunes, dos _____ del martes y una más para los otros tres días.

14._____
15._____
16._____
17._____
18._____
19._____
20._____

Tánh nào tật ấy

Một hôm thỏ và khỉ ngồi _____. Trong lúc trò chuyện, cả hai đều không ngừng tật xấu của mình. Dĩ nhiên khỉ cứ gãi luôn tay _____, thỏ thì sở kẻ thù nào đó tấn công cứ nghếch _____ ngóng mọi hướng. Cả hai con đều không yên.

"Lạ thật," thỏ _____ khỉ" sao anh cứ phải gãi không ngừng _____ một giây thế nhỉ?" "Cũng chả lạ gì hơn anh cứ phải ngó ngoáy cái đầu _____ vì đâu" Khỉ đáp. "Ồ, nếu tôi muốn ngừng thì _____" thỏ nói. "Hay lắm! Thử xem anh lăm nổi không. Hai ta cũng _____ xem có yên được không. _____ nhúc nhích trước là thua cuộc."

Thỏ nhận lời. Thế là _____ cũng canh chừng xem đứa nào nhúc nhích. Chỉ mấy chốc _____ cả hai đều chịu hết nổi. Khỉ thấy _____ khắp người. Trong đời khỉ. Chưa bao giờ nó ngứa khiếp đến thế. _____ khác, thỏ cầm chắc có kẻ thù sắp chụp lấy mình từ sau lưng tới. Sau cùng thỏ _____ hết nổi, nó bảo "Mình đánh cuộc không có nghĩa là mình không thể kể chuyện cho nhau nghe cho qua thời giờ, phải không?" "Đúng" khỉ đáp, đoán chừng thỏ sắp dở trò gì đây. Khỉ cũng _____ dở trò đó. "Tốt, vậy tôi bắt đầu" thỏ nói, "Tưởng tượng mà xem, một ngày nọ ở ngoài đồng _____ tôi gặp nguy hiểm ghê gớm lắm..." "Lạ nhỉ, _____ tôi cũng gặp cảnh y như vậy," khỉ cướp lời. "Thật à?" thỏ tiếp tục, "Tôi thấy một đàn chó nhảy qua cánh đồng từ từ_____. Chúng đến từ bên trái, bên _____ đằng trước, đằng sau. Tôi quay đầu phía này, phía kia như vầy nè...Anh thấy không?" Và để ta cho rõ thỏ vừa nói vừa xoay đầu bốn phía.

Dĩ nhiên, khỉ cũng có chuyện kể, nó nói "Hôm ấy, tôi bị một _____ trẻ chọc phá chúng ném đá vào tôi mãi. Chúng ném một cục vào đây, một cục chỗ nầy..." _____ tới đâu nó đấm vào đó để bắt ngứa. Thỏ hiểu tại sao khỉ lăm vậy bèn phá ra cười bảo bạn "Thôi anh đi, thật thà với nhau là hơn.

1._____
2._____
3._____
4._____
5._____
6._____
7._____
8._____
9._____
10._____
11._____
12._____
13._____
14._____
15._____
16._____
17._____
18._____
19._____
20._____
21._____

Muốn sao thì muốn mình không bỏ được thói tật quen đâu. Thấy chưa. Thôi anh chẳng thua mà tôi cũng chẳng được cuộc."

Kể bởi Charlotte và Wolf Leslan

Sierra Leone

Bí mật của cái vali

Bà Emory __ một căn nhà nhỏ. Cửa bếp nhìn ra hàng cây cao. Mùa hè cửa bếp luôn ____ rộng. 1._____ 2._____

Charles Workman sống trong một căn _____ lớn hai tầng gần đó. Gia đình Workman mới đến khu này. Charles và Bà Emory thân _____ thân. Nó thích ngồi trên bực cửa xem bà làm bánh. 3._____ 4._____

Ngày nào bà Emory cũng ____ bánh trong bếp. Chả ai trong vùng hiểu tại sao. Những cái bánh là cả một bí ẩn. Nhưng Charles biết đó là những loại bánh gì. 5._____

Vào _____ bà Emory bao giờ cũng làm _____ gừng.. Thứ Hai là ngay thơm lắm. Vào thứ Ba, bà làm bánh sô-cô-la. Không khí trong _____ bếp thật ngọt ngào vào thứ Ba. Hôm sau bà làm bánh bơ lạc Charles Workman thích bánh này nhất. 6._____ 7._____ 8._____

Bánh ngày thứ Năm chả bao giờ giống nhau "Thứ Năm là _____ dùng đồ thừa "bà Emory nói." Và ngày làm bánh mỗi cuối tuần là món dắc biệt của _____ Emory, bánh lúa mạch dồn. 9._____ 10._____

Vào sáng thứ Bảy, bà Emory đi chuyến xe buýt sáu giờ sáng. Bà đi đâu _____cả một bí mật. Bà xách theo một vali cũ rất nặng. Bà về nhà _____ tối trên _____ sáu giờ chiều. Cái va-li còn nặng hơn. Charles thích xách va-li ra xe và xách vềnha lúc tối. Bà Emory bao giờ cũng hỏi, "Hôm nay cháu có _____ xách nổi không? Nặng lắm đấy." 11._____ 12._____ 13._____ 14._____

Charles biết mình khỏe xách nổi chứ! Đến xe buýt nó ngắm bà Emory leo lên xe. Bà lanh lẹ lắm. Tóc _____ bạc cả. Giầy cũ và _____ rộng. Áo khoác bà dài, váy cũng dài. Mũ bà màu xanh. 15._____ 16._____

Charles nâng _____ nặng đó lên cho bà và bà đưa nó một gói, "Cống cháu đây, cám ơn cháu, Charles Workman." 17._____

Công tuần nào cũng _____ - ba bánh thứ Hai, hai _____ thứ Ba, và một bánh cho mỗi ngày còn lại. 18._____

Một tối thứ Bảy nó đợi mãi. Khi về nhà nó gọi mẹ "Má ơi, bà Emory có bao giờ trễ như vầy đâu. Con không hiểu bà đâu" Má nó đáp "Bà ấy bí mật lắm." 19._____

Charles lắc đầu "Con đoán bà Emory đem bánh tới chỗ nào đặc biệt lắm."

"Co le ba ay ban banh" ma doan "Banh ba co ngon toi muc ban duoc khong, Charles?" "Ngon lam chu! Con thich lam va con thich ca ba Emory nua. Ba ay la mot trong nhung ban tot nhat cua con. Nhung con khong hieu dieu gi lam ba hom nay tre vay."

San Chu nhat Charles toi hen cua bep va nhin vao cua so ba Emory. Can nha co ve im lim qua.

"Minh khong hieu ba ay dau" no nhu tham, "Cha co ai o day ca." Nhung me sau co tieng dan ong hoi," Chau kiem gi vay?" Mot ong canh sat la mat nhin no.

"Chau dang kiem ba Emory "Charles dap, "Ba ay khong bao gio cho chau hay ba di dau nhung bao gio cung toi la ve. Va-li ba luc ay nang lam va chau giup ba xach no. Dem qua ba khong thay ve." Nguoi cahn sat shi vai dieu vao so tay. Ba cua Charles voi va bang san qua "Cai gi vay?" Ong Workman hoi.

Nguoi canh sat dap, "Con trai ong dang lo ve ba hang xom. Ong co mot tham tu gioi lam trong gia dinh do."

"Ba Emory ha? Ba di di ve ve voil cai va-li cu that nang. Chung toi chi biet co the thoi. Ba ay la bi mat cua khu nay."

Appendix D

Parent-Student-Teacher Questionnaire

Parent-Student-Teacher Questionnaire

Name_____

Grade_____

School_____

Date_____

Date of birth_____

1. Age (years) _____
2. Sex (male or female) _____
3. Native country _____
4. Native language _____
5. Date of arrival in the United States _____
6. Home language: English only _____ Native language only _____
   Both English and Native language: Percentage of English _____
   Percentage of Native language _____
7. Whom do you speak English with at home? _____
8. Number of siblings (not including you) _____
9. Your order in age compared to your siblings: first _____
   middle _____
   last _____
10. Number of hours in ESL class per week _____
11. Number of students in ESL class _____
12. Total number of years of English instruction in your native country _____
    in this country _____
13. Number of hours of watching TV per day _____
14. Parents' arrival date in the United States _____
15. Father's occupation _____
16. Father's years of education _____
17. Mother's occupation _____
18. Mother's years of education _____
19. Mother works at home _____; mother works outside of home _____.
20. How often do you visit public library per month? _____

Parent Permission Form and Accompanying Letter from ESL Teacher

Dear

Enclosed with this note is a letter from Ulla Connor where she asks your permission to let your child take part in her reading study.

Ulla Connor is an English as a second language teacher (ESL) in the Madison Public Schools, presently on leave for studying purposes. She is interested in ESL students' reading skills and finding ways ESL students can become better readers.

I feel that this study will help the ESL students and the Madison ESL program. I would appreciate your signature on the parent permission slip.

Please send the letter back to school with your child before

Yours sincerely,

ESL Teacher

TO: Parents of

FROM: Ulla Connor,
English as a Second Language (ESL) Teacher and
Research Assistant

RE: Parent Permission Form of Research Study

As an ESL teacher in the Madison Public Schools since 1973, I have experienced that most non-native speakers of English have difficulty with reading. We have designed this research to study factors which may affect ESL learners' reading skills (e.g., native language skills, proficiency in English, ESL instruction, and home environment). It is expected that the results of this study will be of theoretical significance for our understanding of reading skills of ESL students. In practical terms, the study plans to give information to help us better teach reading to ESL students. I hope that you permit your child to participate in this study.

The participating children's reading and listening comprehension skills will be tested in English; the maximum total testing time will be two hours. The tests will be administered by me with full support and cooperation of the Madison Public Schools ESL staff. The anonymity of all participants in this study is guaranteed. No individual will be identified in any reports of this research.

As a part of the study, I would like to ask you (one or both parents) a few questions concerning your child's language and home background. This can be done either on the telephone or at school or in your home. I will be happy to answer any questions you may have about the procedures in this study.

Please sign below to indicate your consent to participate in the study.

_____ _____

Signature Date

Appendix F

Coding Procedures for Parent-Student-Teacher Questionnaire

TESOL STUDY, 1978

Code Manual

Columns	Variable	Description
1-4	Student ID	
5	Card Sequence Number	
6-7	Grade	
8-9	School ID	1 = East High 2 = Franklin 3 = Hawthorne 4 = Jefferson 5 = John Muir 6 = Leopold 7 = Longfellow 8 = Lowell 9 = Marquette 10 = Memorial 11 = Orchad Ridge 12 = Shorewood 13 = Van Hise 14 = West High
10-12	Age in Months	

Columns	Variable	Description
13	Sex	1 = Male 2 = Female
14	Year of Testing	1 = Spring 1978
15-16	Native Country	1 = U.S. 2 = Mexico 3 = Nigeria 4 = Iran 5 = Japan 6 = Ethiopia 7 = Brasil 8 = Vietnam 9 = Sweden 10 = Costa Rica 11 = Venezuela 12 = Chile 13 = Egypt 14 = Hungary 15 = Libya 16 = Korea 17 = Taiwan 18 = Bolivia 19 = Laos 20 = South Africa 21 = Indonesia 22 = Zaire 23 = Norway 24 = Malaysia 25 = Bengladesh
17-18	Native Language	1 = Spanish 2 = Yoruba 3 = Bengali

Columns	Variable	Description
		4 = Japanese 5 = Edo 6 = Amharic 7 = Portuguese 8 = Vietnamese 9 = Swedish 10 = Ibo 11 = Arabic 12 = Persian-Farsi 13 = Hungarian 14 = Korean 15 = Chinese 16 = Loatian 17 = Afrikaans 18 = Hmong 19 = Indonesian 20 = Lingala 21 = Norwegian 22 = Malay
19-21	Length of Time in U.S. in Months	No. of Months
22	Who Staying With in U.S.	1 = parent 2 = parents 3 = sibling or siblings 4 = other relative or relatives 5 = host family (exchange student) 6 = Student here alone
23	State of Parents	1 = both alive 2 = father dead 3 = mother dead 4 = both dead 5 = separated

Columns	Variable	Description
24-25	Home Language	Same codes as in native language
26-38	Percentage of English Spoken at Home	
29	To Whom English is Spoken at Home	1 = parents or parent 2 = sibling(s) 3 = parents and siblings 4 = nobody
30	No. of Siblings at Home	If 5 or 6 in Col. 22, then No. of sibl. in real home
31	Sibling Position	1 = first 2 = middle 3 = last 4 = only child
32-33	No. of Hours in Bilingual/ ESL Class in Madison at the Time of Testing Per Week	
34-35	Number of Students in Bilingual/ ESL Class Here	1 = individualized instruction

Columns	Variable	Description
36-38	Months of ESL Instruction in Native Country	For U.S. born months start from kindergarten
39-41	Months of ESL Instruction in U.S.	" "
42	Hours of TV Watched Per Day	
43-45	Parent's, Parents', or Guardian's Length of Stay in U.S. in Months	For U.S. Born = 400 months
46-48	Father's or Guardian's Occupation	1970 Census Occupational Code; unspecified professionals always coded = 196 [a]
49-51	Guardian's Father's Occupation Status Code	Duncan Socioeconomic Status Index [b]
52	Guardian Father Employed = 1 Father Unemployed = 2 Graduate Student = 3	

[a,b] Featherman, D. L., Sobel, M., & Dickens, D. A manual for coding occupations and industries into detailed 1970 categories and a listing of 1970-Basis Duncan socioeconomic and NORC prestige scores. Madison, Wisconsin: Center for Demography and Ecology, Working Paper No. 75-1, 1975.

Columns	Variable	Description
53-54	Father's Years of Education Guardian's	16 = BA 18 = MA 22 = Ph.D.
55-57	Mother's Occupation	Same as father
58-60	Mother's Occupational Status	" "
61	Mother Empl. = 1 Unempl. = 2 Grad. Student = 3	
62-63	Mother's Years of Education	Same as Father
64	Mother Works in home = 1 out = 2	
65	Number of Library Visits/Month	
66-70	Blank	

Columns	Variable	Description
71	Word Identification Test: 1 = Beginning Level of Word ID Test 2 = Intermediate Level of Word ID Test 3 = Advanced " " "	
72	MAT: 1 = Primary 1 2 = Primary 2 3 = Elementary 4 = Intermediate	
67-69	MAT Standard Score	
73-74	MAT Grade Equivalent Score	
75-77	Listening Comprehension Score	Percentage
78-79	Cloze Score in Spanish or Vietnamese	Percentage
80	Blank	

Blank = Missing Data

999 = NA
99 = NA
9 = NA

Appendix G

ESL Program Questionnaire

Questionnaires were sent to the school systems in the twenty largest U.S. university towns. The towns were selected from Fall enrollment in higher education, 1975, published by U.S. Department of Health, Education, and Welfare, National Center for Education Statistics. The twenty universities and their locations were as follows:

1. University of Minnesota, Minneapolis, Minnesota.
2. Ohio State University, Columbus, Ohio.
3. Michigan State University, East Lansing, Michigan.
4. University of Texas, Austin, Texas.
5. University of Michigan, Ann Arbor, Michigan.
6. Arizona State University, Tempe, Arizona.
7. University of Illinois, Urbana, Illinois.
8. University of Maryland, College Park, Maryland.
9. University of Washington, Seattle, Washington.
10. Northeastern University, Boston, Massachusetts.
11. University of Houston, Houston, Texas.
12. Temple University, Philadelphia, Pennsylvania.
13. University of Cincinnati, Cincinnati, Ohio.
14. San Diego State University, San Diego, California.
15. University of California, Berkeley, California.
16. City University of New York, New York City, New York.
17. California State University, Long Beach, California.
18. Indiana University, Bloomington, Indiana.
19. San Jose State University, San Jose, California.
20. Rutgers University, New Brunswick, New Jersey.

WISCONSIN RESEARCH AND DEVELOPMENT CENTER
FOR INDIVIDUALIZED SCHOOLING
UNIVERSITY OF WISCONSIN · MADISON SCHOOL OF EDUCATION
1025 W Johnson Street Madison, Wisconsin 53706 (608) 263-4200

June 16, 1978

Dear Coordinator,

I am conducting a study of English-as-a-second-language students in the Madison, Wisconsin, Public Schools. To compare the Madison program with others in the country, I am requesting brief information about ESL/Bilingual programs in other cities with big universities. It will take you only about two minutes to fill in the requested information. Enclosed you find a self-addressed, stamped envelope for returning the form. A technical report will be published based on the study next fall. Please indicate if you would like to be sent a copy.

Thank you for your cooperation,

Yours sincerely,

Ulla Connor
Research Assistant

WISCONSIN RESEARCH AND DEVELOPMENT CENTER
FOR INDIVIDUALIZED SCHOOLING

UNIVERSITY OF WISCONSIN · MADISON · SCHOOL OF EDUCATION
1025 W Johnson Street · Madison, Wisconsin 53706 · (608) 263-4200

ESL/BILINGUAL QUESTIONNAIRE

What is the population of your city?

What is the number of students in the Public Schools in your city? _____

Do you have an ESL program? ☐ Yes ☐ No

Do you have a bilingual program? ☐ Yes ☐ No

Which are the three largest linguistic minorities in your program? 1. _____
2. _____
3. _____

What are the approximate percentages of these linguistic minorities, compared to the total ESL/Bilingual program?
1. _____ %
2. _____ %
3. _____ %

Do you want to have a copy of the Technical Report based on the study?
☐ Yes ☐ No

Signature _____ Date _____

Title _____

Address _____

Tel.No. _____